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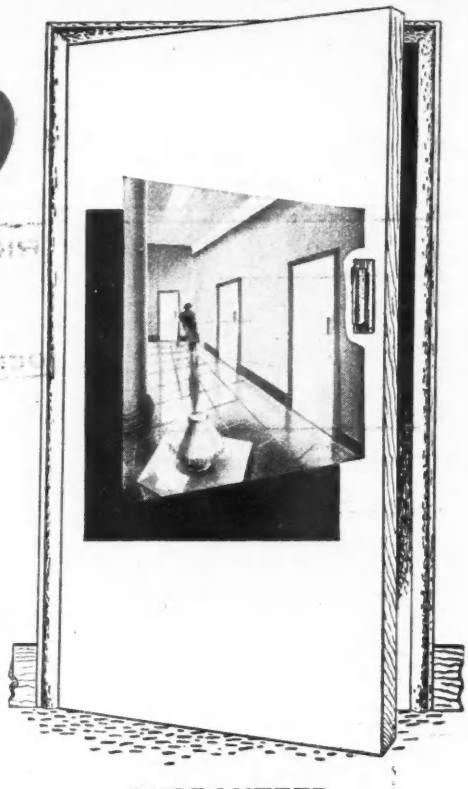

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THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

VOL. CLXXII APRIL 4, 1947 No. 5433

PAYNE
JAN 27 '48

EDUCATIONAL BUILDINGS: A GREAT PROGRAMME

THE Ministry of Education has just issued instructions* to local education authorities in England and Wales, directing them to prepare, within one year, complete schemes of further education providing for the educational and leisure-time needs of all who have left school; together with plans for county colleges for the compulsory part-time education of young people up to the age of 18. Simultaneously, the Ministry has published a voluminous "pamphlet"† of 200 packed pages, entitled "Further Education," elaborating its views in considerable detail. The wide field of "Further Education" includes not only county and technical colleges, art schools and adult classes but also youth and community centres, and village halls. The Government output of printed matter is so prodigal at present that these new publications may escape our readers' notice, but their significance for all engaged in building is so great that we draw attention to them here.

Quite apart from their direct interest for every parent and to every employer of labour in the country (because every young person between the ages of 15 and 18 will have to attend some sort of school or college in the day-time), the new proposals involve an enormous amount of planning for architects and a huge amount of subsequent work for builders, all at a time when the capacity of the industry is admittedly strained to the limit. One wonders when and how this vast programme, comprising many hundreds of expensive new colleges, is to be achieved, or even begun. The proposals may be summarised, for our purpose here, under two heads: the educational objects, scope and implications of the scheme (with particular reference to the training of young people engaged in architecture and building); and the demands that it entails in the way of new or improved premises. There is nothing new in the requirement that all young people between 15 and 18 shall receive continued education: that was all provided in the Education Act of 1944, and explained in a previous pamphlet entitled "Youth's Opportunity," issued in 1945. What is still uncertain is the exact date when the requirement will become obligatory, and that depends mainly upon the provision of new premises; thus bringing us back again to the building industry, which seems to hold all the cards—except the trumps (in the hands of the miners). Where the new documents shed fresh light is in their rather verbose exposition of the relation between the county colleges and the "colleges of Further Education." The "pamphlet" contains a comparatively clear statement (on p. 80) that rural areas with a population less than 10,000 will have a small residential college, urban areas of 10,000-25,000 will have a "small local college of Further Education, including a county college," and those of 25,000 to 50,000 the same, only more so. Areas of 50,000 to 100,000 will have a "central college for Further Education," plus two or more local or county colleges; and so on up the scale. Considering the lavish standards of accommodation and playing-fields now expected by the Ministry, our readers will have no difficulty in envisaging the total magnitude of the scheme.

In the numerous appendices forming more than half the bulk of the pamphlet there are sections dealing specifically with training for architecture and building. The former is a straightforward and accurate account of the existing system of training, with no changes proposed. The latter stresses the need for the provision of four-year (part-time) courses in all the principal building crafts, as well as National Certificate courses, and the doubling of the intake into secondary technical schools of building; with a consequent need for increased accommodation, especially workshops. There is nothing unexpected or novel in this, or in the proposal that technical teachers should receive a short course of pedagogical training. The pamphlet does not tell the builder whether his young employees will devote most of their time, on the days when he has to release them, to vocational studies or not: that is a matter to be determined locally between employers and education authorities in due course.

Coming now to the problem of accommodation, so vital to the whole success of the scheme, we find entirely worthy sentiments expressed on the need for good design in new buildings: "This is the time to plan boldly and comprehensively" . . . "Above all, let us build as beautifully as we can." The dreary, dismal atmosphere of the so-called "night school," held in some sub-standard elementary school with inefficient lighting and a complete absence of social amenities, is still deplorably common; but, under the "New Order," evening classes (attended by a million and a quarter students in 1938) will give place to day-attendance in modern buildings, with incalculable benefit to all concerned. Only a page and a half of the whole report is devoted to the planning of the new buildings, and the hints given are fairly obvious, but an appendix contains a few notes on heating and lighting; also the following useful table of areas in square feet per student-place for various rooms: halls 8 to 10, classrooms 20 to 25, drawing offices 30 to 35, laboratories 35 to 40, workshops 50 to 60 or more, refectories and kitchens 7 to 9, etc.

Nevertheless, this lengthy "pamphlet," useful as it is in some ways, provides very little information directly helpful to the planner or the builder. On the other hand, Circular 133 sets a formidable problem for the overworked education officers of local authorities and their architects to solve in the short period of 12 months. It also raises the inevitable question: where does all this colossal expenditure figure in the priority queue? Is the first county college to wait its turn until the last "black-list" primary school has been replaced? How and when are the relative claims of housing, educational and industrial building to be reconciled, to say nothing of private-enterprise projects? The building industry, apart from the obvious benefits that will accrue to it from such a huge programme, is itself concerned in the training of its young employees, and thus must frankly face the challenge offered to it to ensure the success of this most ambitious scheme.

* Ministry of Education: Circular 133; *Schemes of Further Education and Plans for County Colleges.*

† Ministry of Education: Pamphlet No. 8, *Further Education*, H.M. Stationery Office, 2s. net.

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A.A. Centenary.

MR. HOWARD ROBERTSON, F.R.I.B.A., S.A.D.G., Honorary Associate of the American Institute of Architects, has been nominated President for the Architectural Association's Centenary year, starting on June 1.

Howard Robertson enjoys an architectural reputation which is international. He has just been appointed on to the Commission which will advise on the building of the new U.N.O. headquarters in New York City, and has recently returned from America. With his partners he has been responsible for a large number of notable buildings : he gave much of his personal energy to the British Pavilions for the International Exhibitions at Brussels and Johannesburg and the New York World Fair. He is also well known for his lecturing and broadcasting on architectural subjects. His architectural work, geniality and the stimulating quality of his public speaking make him a happy choice to open the batting in the A.A.'s second century.

Holiday Camps.

THE RISE IN POPULARITY of communal holiday-making in England has been meteoric, and with this rise a new form of architectural problem has arisen—the problem of how to cater for a transient population, and the provision of self-contained amusements and diversions to suit that population, for the majority probably have little desire to leave the limits of the camp. Many people may consider that this is no way to spend a holiday, but the problem has arisen and has to be grappled with.

The " holiday atmosphere " in the past has sometimes been interpreted in terms of a very odd mixture of bogus half timber work and crude concrete buildings; any attempt at working to a unit has been avoided, possibly on the grounds that the various buildings in the camp should be individualistic. It is here that the recent Holiday Camp Competition proved its worth by showing that standardised planning could form an attractive background to the holiday mood, such things as siting of buildings, and making the best use of trees and landscape generally being infinitely more important than providing a hotchpotch of so-called individualistic buildings.

Holiday camps have magnificent scope for design, for here is town planning in miniature without so-many of the accoutrements which make large-scale planning so diverse; they offer opportunity, in fact, for planning in a slightly whimsical mood, and within set limits the results could please most critics.

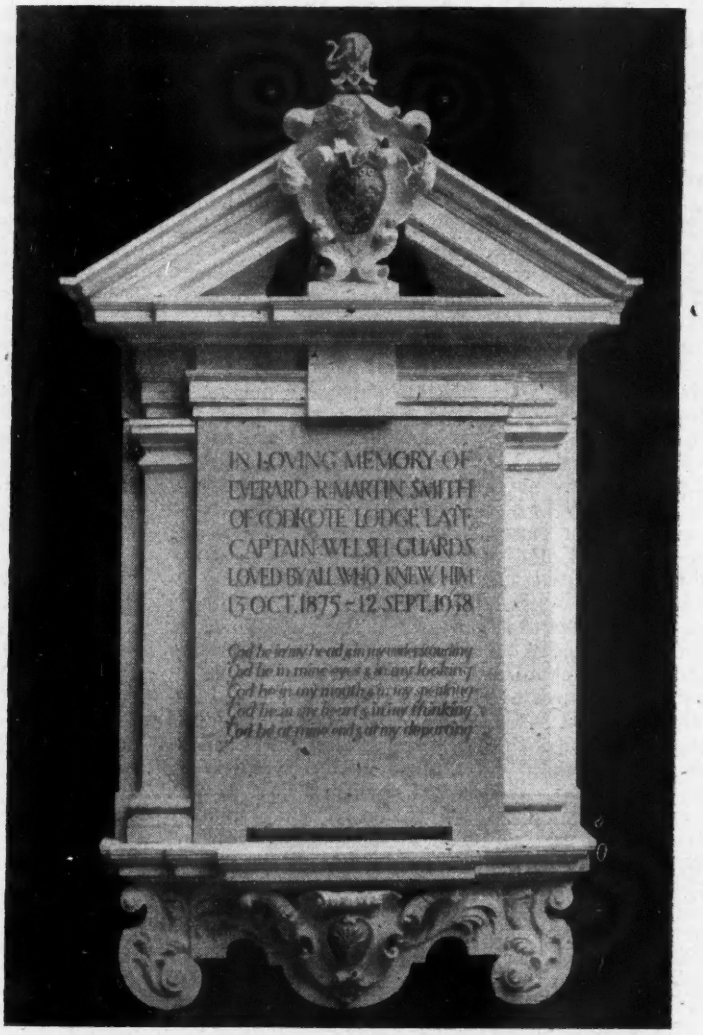
The chief fault to avoid is to make the camps too large; in this way road systems have to be used, and the only difference between a large camp and an ordinary living-centre is the camp boundary. Living for a fortnight in such a place can become tedious, as the necessary restrictions can, in such a big place, soon become petty annoyances. However, for better or worse, the holiday camp is very much with us, and architects should be able to show the way to better and more logical design.

French Tapestry.

THE FRENCH TAPESTRY EXHIBITION at the Victoria and Albert Museum should be visited at all costs, for it not only provides an enchanting scene of colour but also has great architectural value from the historical point of view. The tapestries shown range in date from the 14th century to the present day, and some of the best work in the exhibition is that of the Middle Ages (15th and early 16th centuries). It will give some idea of the scale of the exhibits when we say that there are six hangings from Angers Cathedral depicting the Apocalypse, and each is 80 ft. long by 17 ft. high.

The work of the present-day designers is disappointing. The quality of the old masters is lacking, and (with the exception of Jean Lurçat) is garish and lacking in the true feeling for the craft. The case of Lurçat is interesting. Trained as an artist, he made a considerable reputation for himself as a painter. Since 1917 he has been experimenting in designs for embroidered canvases, and in 1937 he moved to Aubusson, and he has been very largely responsible for the revival of tapestry weaving in France.

All who know Aubusson tapestry and the little town of Aubusson on the river


IN LOVING MEMORY OF
EVERARD R MARTIN SMITH
OF CODICOTE LODGE LATE
CAPTAIN WELSH GUARDS
LOVED BY ALL WHO KNEW HIM
15 OCT 1875 - 12 SEPT 1938

MEMORIAL TABLET, CODICOTE CHURCH, HITCHIN. This Memorial Tablet to the late Captain Everard R. Martin Smith, in Codicote Church, Hitchin, Herts, is carried out in Ancaster stone, the inscription panel and the frieze over this central feature being in dark Hopton Wood stone. The total height from bottom of the " apron " to the top of the pediment (excluding the portion of the coat-of-arms which projects above the pediment) is 4 ft. 3 in. The surmounting cartouche is painted and gilt. The cartouche on the apron carries the emblem of the Welsh Guards (the leek), the late Captain Martin Smith's regiment. The incised lettering and the field on which the gilt " leek " is carved are painted light blue. The tablet was designed by Mr. Trenwith Wills, F.R.I.B.A., and the modelling and carving of the ornament and the carrying out of the complete job was by Mr. Esmond Burton.

Creuze will find this interesting news, for this little mediæval town has been the home of French tapestry since the 14th century, especially of the smaller *verdure* pieces which, usually without human figures, are covered with leaf patterns. And now Jean Lurçat is at Aubusson, strictly adhering to the time-honoured technique, using vegetable-dyed, hand-spun wool woven on the centuries-old low warp looms.

For our own part, we would like to see more tapestry used in modern interior design. Its warmth and colour are attractive, and as a decorative *motif* it has no equal, for it at once strikes a note of fine craftsmanship and quality.

The National Trust.

THE NEWS that Lord Sackville has presented "Knole" to the nation means that there has been added one more famous architectural piece to the already imposing list guarded over by the National Trust. Any nation with pretensions to culture obviously must have such an organisation as the National Trust to protect its ancient and valuable land and buildings against vandalism. We only wish that its powers for good had been more widespread, and that in the last 50 years more land could have come under its jurisdiction.

How Not to Get a House!

AN ALARM BELL has been installed in the inquiry office of the Doncaster Corporation Housing Department. When, as occasionally happens, an applicant for a house becomes abusive and threatens the girl clerk, a touch of the bell will bring male clerks from another room to her assistance. —From the *Manchester Guardian*.

Set-Designer into Architect.

AN ARCHITECT just out of the Services who spent the years before the war in film-set designing tells us that, having decided that he wants to be a real architect and not just a set-designer, he is finding the task of thinking in three dimensions very difficult to master. We can sympathise with him in his plight; film architecture is such a special technique that, with the aid of camera tricks and false perspective, almost anything can be achieved, and anyone who has spent any considerable time in this work finds the hard facts of construction and use of real materials difficult to assimilate. This is not to say that once a film architect always a film architect, but young people who intend eventually to build should think twice before taking on a film job, however attractive the salary, unless they are quite convinced they wish to make it their career.

Wood.

"IN GREAT BRITAIN the abundance of coal renders us independent of wood as fuel, and our geographical position so facilitates the importation of timber that we have, to a great extent, neglected our woodlands as a source of profit, while our mild insular climate has enabled us to overlook the hygienic importance of forests." This is not a satirical comment upon the fuel situation, but an extract from "Wood," an excellent book by G. S. Boulger, published in 1908. Obviously, by the tone of this extract, the Edwardians were a good deal better off than we are to-day, and although from that distance it would have been well-nigh impossible to foresee the present state of affairs, it does seem a thousand pities that we have always treated our own timber resources with scant notice.

Timber for fuel and timber for building; these two commodities could by now have been in abundant supply if planting had been achieved at the right time. Will these fundamental materials ever be completely superseded? The far-seeing "scientific boys" were never more sure that they will be, and talk with great enthusiasm about district heating and the omission of all fireplaces and chimney stacks to houses. District heating may or may not be an excellent idea, but the world being what it is, and politics what they are, complete reliance upon a fairly distant source of supply for anything could be a rather chancy thing.

MR. HOWARD ROBERTSON, S.A.D.G., F.R.I.B.A., nominated centenary-year President of the A.A.

More Furnishing To-day.

FURNISHING to-day is a headache for most people. The necessity to part with treasured coupons for fabrics and the dearth of suitable timber has tended to discourage even the stoutest heart. Mr. Peter Luling, the manager of the Furnishing Studio, at 28-30, Grosvenor-gardens, S.W.1, shows the way to overcome the difficulties, however. His recent exhibition, "More Furnishing To-day," is a triumph in skill and enterprise. Surplus Government stores, mainly 6-ft. barrack-room tables and double-tier bunks, provide the "raw" materials, and one sees some astonishing transformations. A superb refectory table with all-wooden chairs to match is the highlight of an inspiring display. It is difficult to appreciate, too, that a single bed of modern design is executed almost entirely from the self-same components that went to make up the austerity sleeping bunks of war-time England.

Judicious application of linseed oil to ordinary cartridge paper produces an admirable material for lampshades, and ingeniously designed kitchen stools and footrests make an interesting display on their own. The careful employment of colour is demonstrated in a series of cleverly constructed models of rooms designed by Charles Kendrick and executed by Gordon Puttock. There is nothing makeshift about this exhibition.

Housing: Standards of Fitness.

THE Minister of Health now issues a report which has been submitted to him on Standards of Fitness, prepared by a Sub-Committee of the Central Housing Advisory Committee under the chairmanship of Sir Miles Mitchell. The Report surveys the powers and duties of local authorities in relation to unfit houses and the guidance on standards of fitness already given in the Housing Acts and elsewhere. It recommends:

(a) the establishment of a recognised standard of fitness and amenity by which to determine whether an existing house is satisfactory—a standard which varies in some respects from the guidance given by the Ministry in the Manual on Unfit Houses in 1919 and the Rural Housing Manual in 1938.

(b) the establishment of a revised and definite minimum standard of fitness by which to determine whether a house is unfit for human habitation—a standard which in some respects varies from the existing statutory provision contained in Section 188 (4) of the Housing Act, 1936. The Report will be reviewed in our next issue.

Professional Announcement.

MR. WILLIAM TWEEDY, F.R.I.B.A., has taken into partnership MR. C. P. TANNER, A.R.I.B.A., and MR. L. R. COATES, A.R.I.B.A., who have been closely associated with the firm for some years. The style of the firm will continue to be Marshall & Tweedy, of Grainger House, Blackett-street, Newcastle-upon-Tyne, 1 ('phone: N/c 22089).

COMING EVENTS

Wednesday, April 9.

LONDON MASTER BUILDERS' ASSOCIATION (Central Area No. 1). 56th ordinary general meeting and luncheon. Mr. E. J. Smith, F.I.O.B., President, N.F.B.T.E., guest of honour. Derry & Toms' Restaurant, W.8. 1 p.m.

Thursday, April 10.

TOWN AND COUNTRY PLANNING ASSOCIATION. Greater London Conference on "The Applications of the Abercrombie London Plans and the Clement Davies Report." Conway Hall, Red Lion-square, W.C.1. (Continuing on April 11.)

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE. Lecture by Mr. H. Mordaunt Rogers, Past-President, on "The Making of a Connoisseur: Part 20—The End of the Journey." 29, Lincoln's Inn-fields, W.C.2. 6 p.m.

Saturday, April 12.

ECCLESIOLOGICAL SOCIETY. Visit to Morden College, Blackheath, and St. German's Church, St. German's-place, Blackheath. Meet at College entrance. 3 p.m.

From *The Builder* of 1847

Saturday, April 3, 1847.

DIPPING into Mr. D'Israeli's new novel the other day, hight "Tancred," we stumbled over a proposition, by the author, for improving architecture in Britain's happy land which is at once so novel, so startling and so *reasonable* that we should do wrong if we did not bring it prominently before our readers. He is discoursing upon London and . . . complains that, after all, London is not grand. "It possesses only one of the qualifications of a grand city—size; it wants the equally important one—beauty. . . . What is wanted in architecture, as in so many things, is—a man. Shall we find a refuge in a committee of taste?—escape from the mediocrity of one to the mediocrity of many? . . . But one suggestion might be made. [Now it's coming. Prepare for it, good reader, and don't be alarmed.] No profession in England has done its duty until it has furnished its victim. The pure administration of justice dates from the deposition of Macclesfield. Even our boasted navy never achieved a great victory until we shot an admiral. Suppose an architect were *hanged*! Terror has its inspirations, as well as competition!"

Well done, Young England. This recipe for good architecture is really delightful. HANG AN ARCHITECT? What can be simpler or more likely to do good execution? There are several who deserve it, or at all events ought to be suspended, which sounds like the same thing. This would, indeed, be breaking the neck of the difficulty, and elevating the profession in right earnest. Mr. D'Israeli evidently observes how architects are being shouldered on either side, and thinks it high time that they were set up in a new *line*. They have been run down long enough; now, he says, they shall be run up.

D

South Aisle Roof, before treatment.

South Aisle Roof, after treatment.

REPAIR OF A BOMB-DAMAGED CHURCH, SOUTH DULWICH

UNUSUAL METHOD OF RESTORING WALLS AND TRUSSES

A NEW DEPARTURE FROM THE TRADITIONAL methods of repair and rebuilding has recently been put into operation at St. Stephen's Church, South Dulwich, under the direction of the architect, Mr. Thomas F. Ford, F.R.I.B.A., Surveyor for Enemy Damage to the Southwark diocese, and it is thought that some details of this would be of general interest.

In 1944 severe damage was caused to the roof and walls of the church by a flying bomb. A survey revealed that some of the principal roof members were broken and in consequence the nave roof had dropped and spread at the foot, pushing the clerestory walls out of upright and moving the aisle roofs outwards on top of the side walls. The stonework of the clerestory gables was dislocated and some of the nave arches cracked and distorted. Immediate steps were taken to prevent further collapse of the nave roof by erecting a temporary scaffold to support the fractured truss.

Recently a licence was obtained for the repair of the stonework and for securing the nave roof with tie-rods. Before any masonry work could be done to the clerestories it was essential to restore the bulging walls of the church to their original position. In November, 1946, an accurate survey showed that the spread of the clerestory walls in the centre of the nave was as much as eight inches at a height of 20 ft. from the floor.

After consultation between the architects and the technical department of Messrs. J. V. Watkins, Ltd., it was decided to return these walls and roofs to their original position if possible without dismantling and rebuilding, and the contractors were instructed to put in hand this somewhat delicate and intricate job.

The first step was to insert a pair of iron tie-rods to each of the nave trusses,

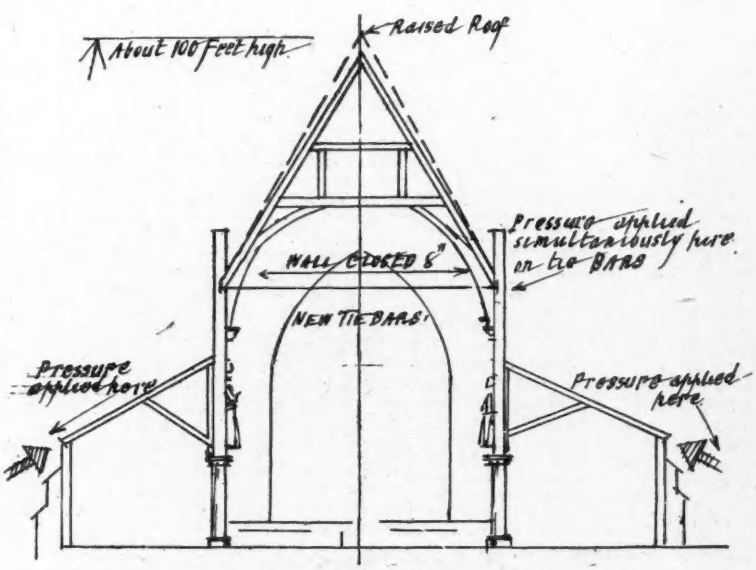


Diagram showing method of applying treatment.

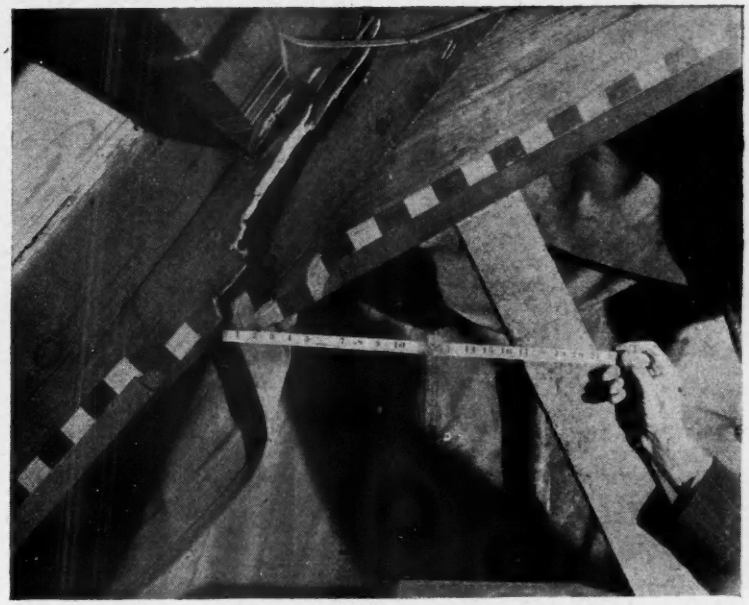
secured with sole-plates, and tightening screws. While this was in progress, stout timber rakers were erected outside both aisle walls, opposite the aisle roof trusses which were placed over the nave columns. These rakers rested upon sole pieces sunk well into the soil. When all was ready, pneumatic jacks were inserted, and the preparations were complete.

A pressure of 20 tons was applied to the foot of the roof trusses to squeeze them together at the same time as a load of 50 tons was applied to the side of the clerestory walls by the jacks acting through the aisle roof trusses. As a result the walls were moved into an upright position, and the nave roof closed up, the slack being taken up on the tie bars which had previously been inserted. The effect of this was to raise the main roof to its original pitch, a matter of some three or four inches, thus freeing the temporary shoring, which was then removed. The roofs over the aisles resumed their original position.

Great care had to be exercised throughout the operation, since much greater fractures than those already existing could easily have been caused if the movement at any one point had outstripped the remainder. Repeated applications of pressure at the various parts of the building were necessary, the walls being moved less than one inch at a time until the desired alignment was obtained.

The work was commenced about the beginning of November, 1946. By November 27 the north clerestory wall had been restored to its original position, and similar work was commenced upon the south side, which also by the beginning of December had been returned to the vertical. Thus over a period of five weeks the building was restored to its original shape, allowing the rebuilding of the clerestory gables and the repair of the cracked arches to proceed.

By adopting this unusual method the restoration of the structure has cost but a fraction of what it would have done if the usual course of demolition and rebuilding had been followed. A letter of congratulation has been received by the contractor from the architect upon the skilful handling of the undertaking.



Photograph showing a fractured truss.

OBITUARY

H. P. Burke Downing, F.S.A., F.R.I.B.A.

We regret to record the death of Mr. Henry Philip Burke Downing, which took place at Merton on March 26. An old friend writes :—

The death of Burke Downing at the age of 81 marks the passing of a generation which in its time had an honoured place in the profession and in public estimation. The "Gothic" men of his time had a profound and unshaken belief in their principles and methods. They were untroubled by new ideas and modern schools of thought. Burke Downing's ideas and methods were set in a mould fifty years ago, and they retained their shape to the end. In his own class he was a very good architect, a skilful and orthodox planner and constructor, a scholarly designer to whom traditional Gothic detail was half the battle of architectural design. Whether he was engaged on a new church, a restoration, a school, or a house, the result was always sound and conscientious. His mental outlook in affairs was as firmly set as his ideas in the field of design. To be entirely out of step with contemporary fashions and ideas did not worry him in the least.

His professional career was a very full one. Born in 1865 and educated at St. Olave's, he was a student in the Royal Academy School of Architecture. Elected an Associate of the R.I.B.A. in 1890 and a Fellow in 1896, he was also a Fellow of the Surveyors' Institution, and after many years of service on the Art Standing Committee and the Board of Examiners of the R.I.B.A., he became a Member of Council and in 1926 a Vice-President. He was proud of his Fellowship of the Society of Antiquaries and of his membership of the Athenæum, where in the last years of his life he spent many placid hours. He was a member of the Committee of Hon. Consulting Architects to the Incorporated Church Building Society and the London Diocesan Fund, Diocesan Surveyor for Chelmsford and Diocesan Architect for Chichester. His professional works included the Church of the Holy Spirit, at Clapham Common, St. Barnabas Church, Mitcham, St. John's Church, Walthamstow, All Saints' Church, Hackbridge, St. Augustine's Church, Tooting, and additions to Beddington Church, Surrey, Gillingham Church, Dorset, and Budleigh Salterton Church, Devon. His many works of restoration and preservation included Winchelsea Church in Sussex. He designed schools for the Boroughs of Wimbledon, Bromley, and Bexhill, and a variety of domestic work at Kingswood and elsewhere. He was a conscientious author in the subjects that were dear to him, and his publications included "Architectural Relics in Cornwall," "Monograph on the Church of St. Bartholomew, Lostwithiel," "Westminster Abbey and its Monuments," "Monumental Brasses," "Churches for the New Centres of Population," and a number of papers on the Archæology of Architecture.

Photograph showing method of applying pressure to the foot of the roof trusses.

WORD FROM WESTMINSTER

By Derek Walker-Smith. M.P.

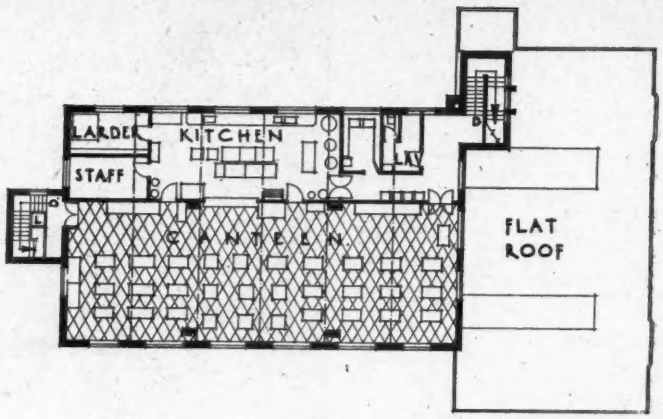
THOUGH the debate on Rural Housing in the House of Commons provided an interesting exchange of views, it was disappointing to those who expected it to produce any new pronouncement of policy either by way of new house-building or reconditioning in the rural areas.

The hope was expressed during the debate that the Government would assist a speedier erection of houses in the rural areas, particularly by the relaxation of the strict four to one ratio, and that they would give an assurance of prompt legislation in regard to reconditioning in accordance with the recommendations of the fourth Report of the Hobhouse Committee. To the first point, Mr. Edwards, though new to the Ministry, made the old answer: the great need is for houses to let, and therefore the predominant portion of houses built must be local authority houses. On the second point, Mr. Edwards said that the Government hope to declare their intentions before the end of the session. This in effect means that, on the most optimistic basis, legislation to enable grants to be paid towards the reconditioning of rural houses could hardly be on the Statute Book before the early part of 1948.

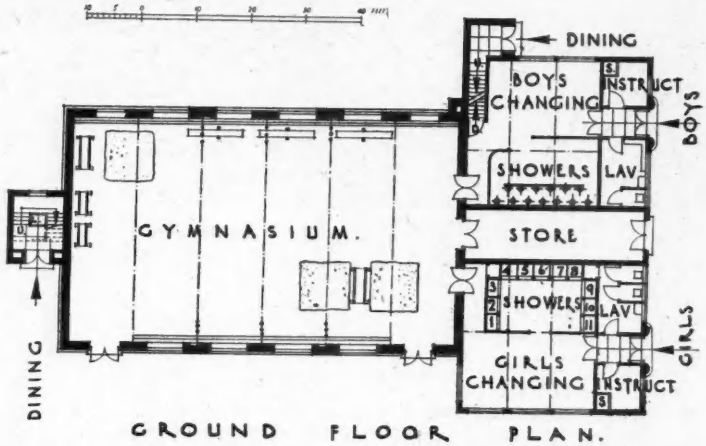
In the general sphere of housing, the argument about the four to one ratio and the proper comparative places in the present building programme of private enterprise and local authorities respectively is an old and well-worn one. But in this debate it was argued on a narrower and more specific basis. The contention was advanced that in rural areas there are many small builders who could build one or two houses for private owners, but could not, in practice, be absorbed into the complex mechanism of contractual building. On this assumption, the argument was not between houses to let and houses to sell, but between houses built in one way or not built at all. In other words, the issue was one of the precise capacity of certain elements of the building industry, and the best means of using the resources of the industry in rural areas.

Against this, the argument was put up that houses built in this way would not be built for farm-workers and therefore would not help in the vital task of providing housing accommodation for those who can expand food production. This rejoinder, however, was not accepted, as it was pointed out that farmers or land-owners building houses for letting to their agricultural workers (*i.e.*, not as "tied" houses) would qualify for the special rate of subsidy under Section 13 of the 1946 Act.

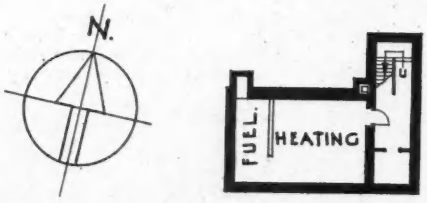
At present, however, the result of the debate is no change in general Government policy. Rural housing is to be viewed in its relation to the main housing problem, and will be governed by the same familiar policy.



FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

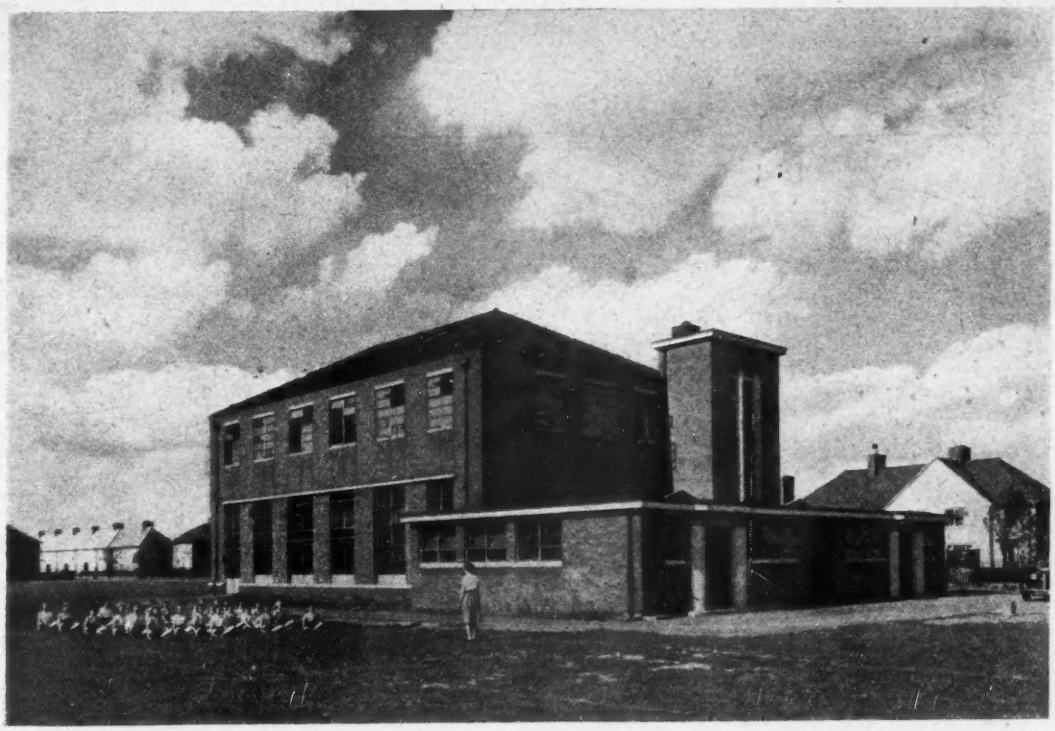


BASEMENT PLAN.

GYMNASIA AND DINING CENTRES, BARKING

TWO SIMILAR BUILDINGS HAVE BEEN erected by Barking Corporation—one at Eastbury School, and the other at Erkenwald School, Barking—to provide at each school a gymnasium and a dining centre for school meals, the dining-room being capable of sub-division into three rooms for teaching purposes. The buildings were in course of erection at the outbreak of war, and were completed during the early days of 1940 to enable the dining centres to be used as British Restaurants. The main contractors were Messrs. A. McClelland & Co., Ltd., and the Works Department of Barking Corporation. Messrs. Gardiner & Theobald were the quantity surveyors.

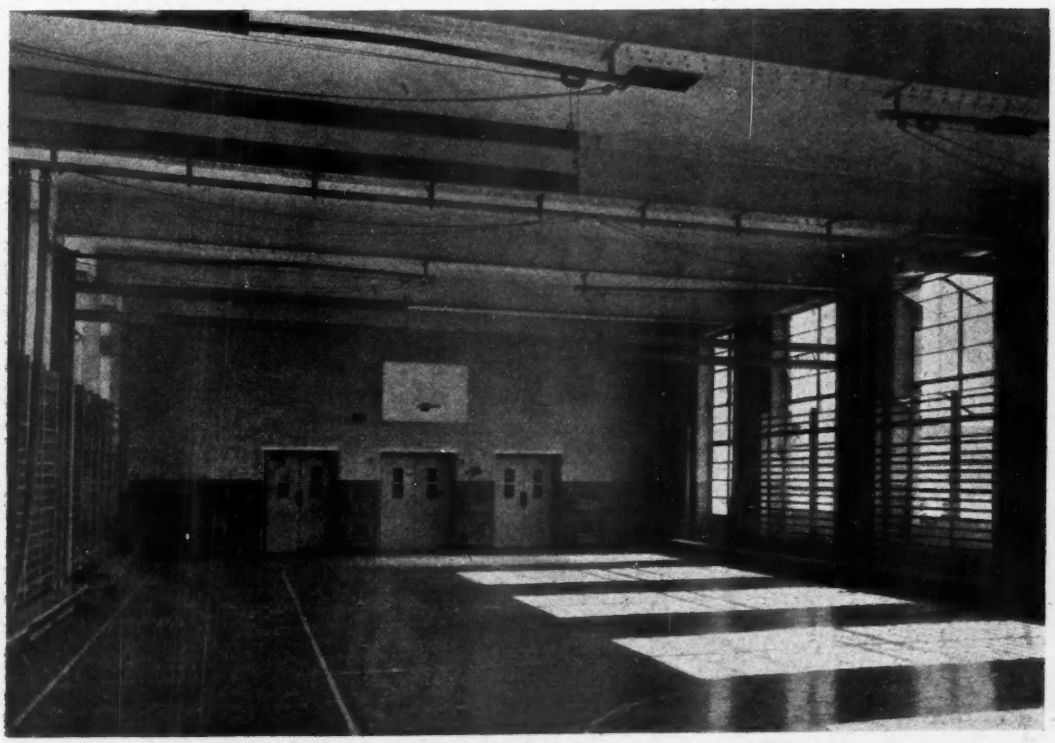
The suppliers and sub-contractors were: Hollow tile flooring, Attoc Blocks,* Ltd.; structural steelwork, Sanders & Forster, Ltd.; metal windows and doors, metal screens and metal top-lights, Crittall Manufacturing Co.; Ruberoid, the Ruberoid Co., Ltd.; roof tiling, Roberts Adlard & Co., Ltd.; electrical installation, Harland & Wolff, Ltd.; sanitary fittings, Wiggins-Sankey, Ltd.; doors, Manor Joinery Works; folding screens, the Eastern Joinery Works; flooring, "Zeta" Wood Flooring Co. (1910), Ltd.; wrought-iron staircase balustrades, Safety Tread Syndicate, Ltd.; heating installation, Comyn Ching & Co., Ltd.; shower fittings, Gummers, Ltd.; counter fitments, Eastern Joinery Works; and roller shutters, Acme Blinds, of Ilford.



View from Grounds.

GYMNASIA AND DINING CENTRES, BARKING

C. C. SHAW, B.Arch. (L'pool.), F.R.I.B.A., Borough Architect



Interior of Gymnasium.

View of House.

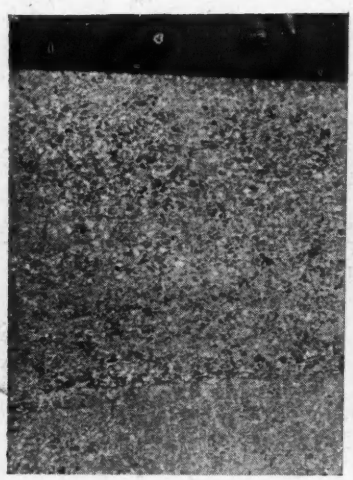
THE " CAST-RENDERED " HOUSE

R. A. YEARSLEY, ARCHITECT

SHOWN IN THESE PAGES IS A development of the " Cast-Rendered " method of constructing poured *in-situ* concrete walls for houses. The prototype is a detached house, with garage and outhouse, and cost £1,600, but the regulation semi-detached design, if erected on a production run of 50, is estimated to cost £1,260.

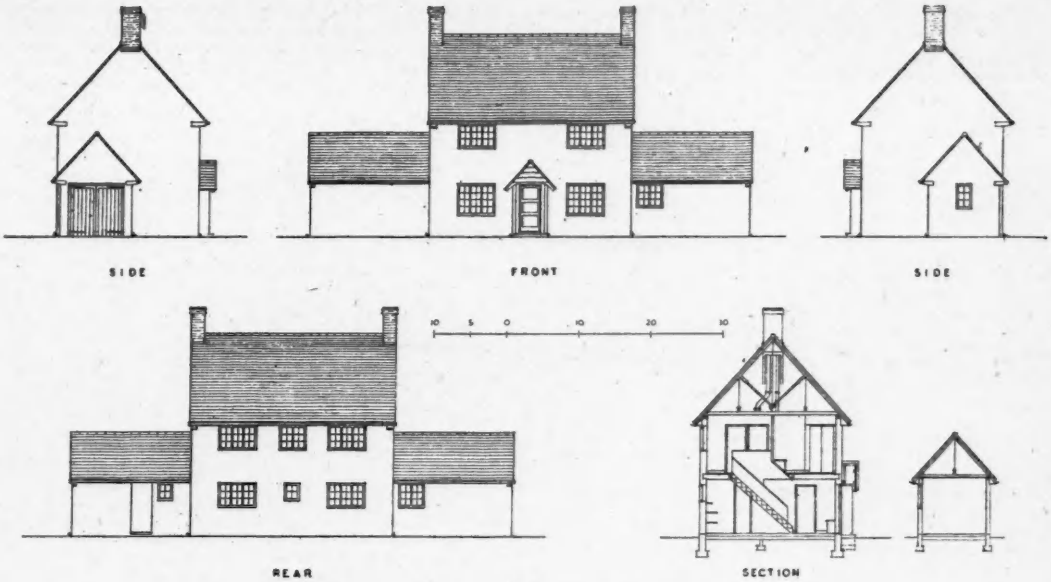
THE OBJECT : Normally a concrete wall, particularly if of " no-fines " concrete, needs to be rendered externally and plastered internally after removal of the formwork. The method illustrated seeks to cast a wall as nearly finished as possible in one operation.

THE METHOD : Good steel-faced formwork is set up, the width between faces being the thickness of the finished wall, including renderings. Pairs of sliding shutters, which form a special item of plant, are made to fit inside the formwork, the width between plates being equal to the thickness of the " no-fines " or other concrete " core " of the wall. A cement-lime-rendering material, the concrete of the " core," and a cement lime plaster are poured into the three spaces so formed (see diagram on next page). In the case of the prototype house, these sliding shutters were made 12 in. deep. As

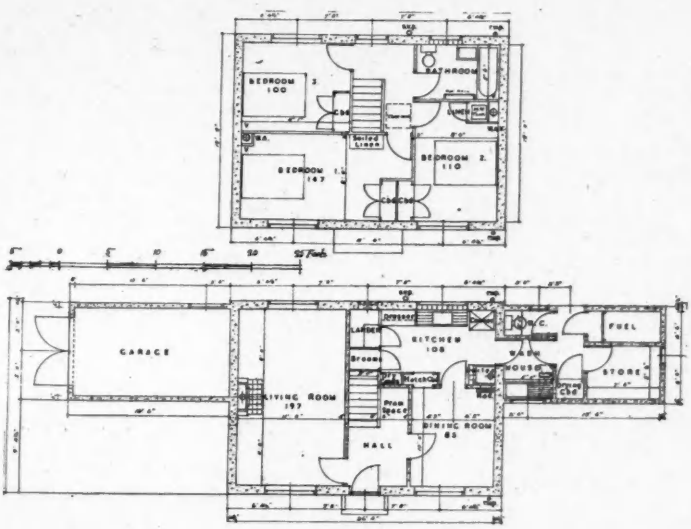


Detail of Concrete Face.

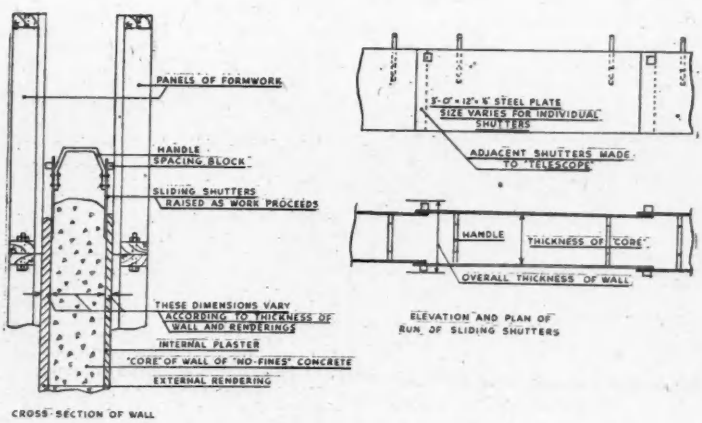
The Living-room.



THE "CAST-RENDERED" HOUSE: Elevations and Sections.



Plans.


PANELS OF FORMWORK
HANDLE SPACING BLOCK
SLIDING SHUTTERS RAISED AS WORK PROCEEDS
THESE DIMENSIONS VARY ACCORDING TO THICKNESS OF WALL AND RENDERINGS
INTERNAL PLASTER
"CORE" OF WALL OF "NO-FINES" CONCRETE
EXTERNAL RENDERING
CROSS-SECTION OF WALL
3'-0" × 12" × ⅝" STEEL PLATE SIZE VARIES FOR INDIVIDUAL SHUTTERS
ADJACENT SHUTTERS MADE TO TELESCOPE
HANDLE
THICKNESS OF "CORE"
OVERALL THICKNESS OF WALL
ELEVATION AND PLAN OF RUN OF SLIDING SHUTTERS

Typical Arrangement of Shuttering.

soon as they are filled, and while the material is still wet, they are raised, refilled, and the process repeated to the top of the lift.

COST AND LIMITATIONS: The additional costs over the normal method are the initial cost of sliding shutters and about 25 per cent. extra labour during pouring. Against these, most of labour of rendering and plastering and the plasterers' scaffolding is saved. Some sort of decorative finish is required after casting, such as wash on the exterior and a skim-coat of hardwall plaster or a cement paint on the exterior.

DETAILS OF CONSTRUCTION.—The following details have been followed in or evolved during the construction of the prototype house:—

Sliding Shutters: During the design period, the lengths of individual pairs of sliding shutters were so adjusted that they pass clearance between door and window frames. Adjacent pairs of sliding shutters are made to telescope within one another, so providing for errors in position of door or window frames or corners.

Door Frames: Door frames are cast in the normal way.

Window Frames: Windows set in wood frames were cast complete.

A 4-in. space left under the window allows for a tiled cill.

Lintels: The sliding shutters were omitted for a height of 9 in. above the door and window frames, the outside rendering mixture being allowed to flow over the frames and form a dense concrete lintel.

Lead over Openings: A sheet of lead is placed on the lintel at the same time as the sliding shutter is replaced in the formwork. The lead is turned up 4 in. against the inside shutter.

Grounds: Wood blocks to carry fittings or strips to carry pipes are made the thickness of the rendering, with nails driven half-way into their edges; they are planted between the sliding shutters and formwork.

Switch Drops and Wood Fillets for Chases: These are planted between the sliding shutters and formwork.

Attachments for R.W. and Soil Pipes: "Loxmet" plugs are cast in the outside rendering for ⅜-in. coach bolts.

Holes through the Wall: Tubes are made equal to the thickness of the "No fines" core. They are planted between the sliding shutters, with a wad of paper in each end. During casting the rendering covers them and is knocked into the tube after removal of the formwork.

STRUCTURAL USES OF ALUMINIUM

ILLUSTRATED IN THESE PAGES IS SOME recent development work, using aluminium and light alloys, initiated by Structural and Mechanical Development Engineers, Ltd., of which Almin, Ltd., is the parent company. Principal attention has been paid over the last 18 months to the Aluminium House (illustrated in *The Builder* of April 6 and June 8, 1945), of which 54,000 had been completed by the end of 1946.

There has now been designed, at the request of the Ministry of Supply, the "Alcrete" two-storey house. This is a "permanent" house, utilising the same basic principles as the temporary house, but incorporating several improvements arising from the experience gained in the earlier project. The new house (of which a diagrammatic arrangement is shown on facing page) is so designed as to enable the factories now producing the single-storey bungalow to turn over to its manufacture when the present contract is completed.

Other developments are a series of designs for railway service buildings, of which one for a combined waiting-hall and refreshment buffet is also illustrated.

Actually in production is the permanent prefabricated tropical hostel, shown on this page. There is, it should be pointed out, no question of exporting these houses to the disadvantage of people at home. It is proposed to export only the aluminium alloy components used in its construction, and the services of the designers and technicians responsible for its design. In no case are skilled operatives being employed in its construction. Following is an outline specification :

The building is designed to carry all superimposed loads, in addition to its own dead weight, within the necessary requirements of strength and stiffness, and to give the necessary factor of safety under normal loading conditions.

LAYOUT.—The bungalow comprises : *Area* : four main rooms, 162 sq. ft. (15.1 sq. metres) each; two wash rooms, 45 sq. ft. (4.16 sq. metres) each; one w.c., 19 sq. ft. (1.78 sq. metres); and one kitchen, 40 sq. ft. (3.71 sq. metres). There is a covered terrace along front and rear of the bungalow.

Each living-room is 12 ft. 9 in. (3.9 metres) square, ceiling height 10 ft. (3 metres), with door and fanlight over, a window 6 ft. (1.84 metres) high by 5 ft. (1.53 metres) wide at the front, and a window 6 ft. (1.84 metres) high by 6 ft. 6 in. (1.92 metres) wide at the rear, and is provided with fitted cupboards which act as divisions. The wash rooms are 7 ft. 6 in. (2.29 metres) by 6 ft. (1.84 metres), and are provided with the following equipment :—

One room is equipped with two shower cubicles, complete with shower fittings, and two lavatory basins, all complete with the necessary plumbing, and one heater cabinet, complete with hot water cylinder and immersion heater. The other washroom is equipped with a bath, with shower over, one lavatory basin, and one w.c. suite. The bath is not supplied. Each lavatory basin is supported on a cupboard unit.

The kitchen is equipped with a sink and heater unit, comprising a cupboard containing a hot-water cylinder fitted with immersion heater, with a draining board over, and a small cupboard adjacent with sink over.

Foundations: Foundations may be a concrete slab, with brick dwarf walls round the perimeter of the building and longitudinally on the centre line of the building, approximately 9 in. high, as a bearing for the floor construction, or, alternatively, it may consist of concrete piers built into the ground, where site is sloping, placed where supports for the floor structure are required, i.e., at approximately 6 ft. 6 in. (2 metre) centres in both directions.

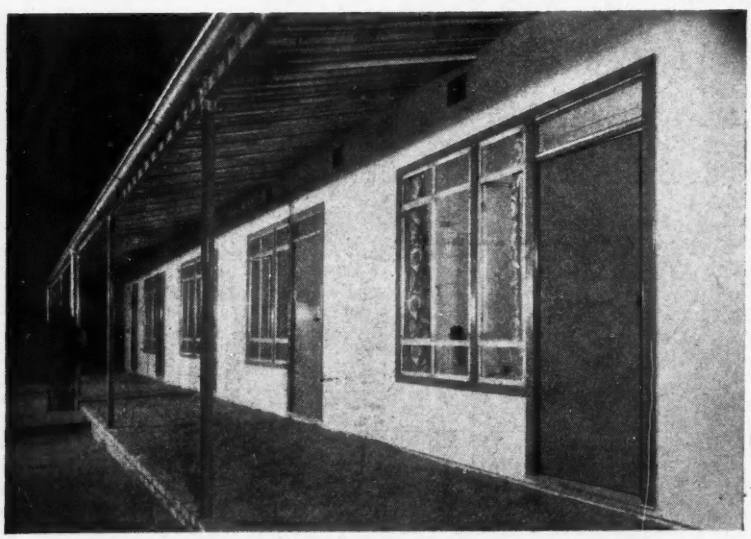
Floor : The floor construction consists of light alloy panels supported on light alloy extruded framing bearing on the dwarf walls or concrete piers. The panels are filled with a cellular concrete having a high thermal insulation value.

Walls : Panel frames are fabricated from light alloy extruded framing members riveted together and covered externally with light alloy sheet, the sheet being clad with pure aluminium on both surfaces. The panels are filled with cellular concrete, which is keyed to the sheet with metal anchors and a bitumen adhesive. The internal surface is mechanically covered with plaster in the factory. Doors would be provided in light alloy. All joints between wall panels are provided with an external light alloy cover strip.

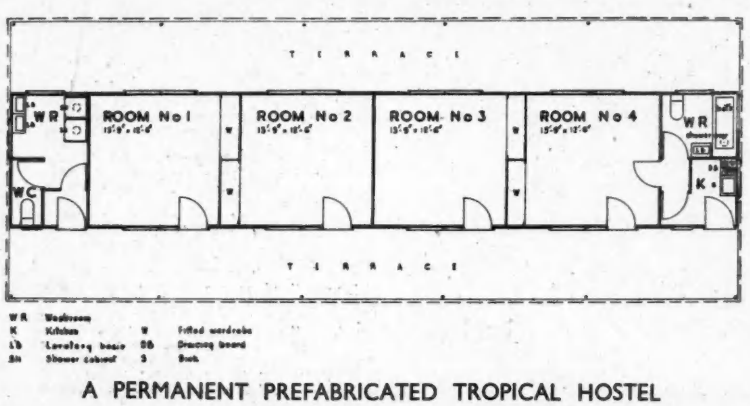
Partitions : Internal partitions are similar in construction to the wall panels, having a frame of light alloy extruded sections riveted together, filled with cellular concrete, except that both sides are covered with chip board.

Roof : The roof is framed entirely in light alloy, the main supports being the wall panels and a longitudinal lattice girder, in two pieces, which is carried by the gable walls, internal partitions and cupboards. The covering is a corrugated light alloy sheet, clad on both sides with a coating of pure aluminium, the sheets being 20-gauge thick, with "V"-shape corrugations at approximately 6-in. centres, each sheet being 2 ft. wide as laid, in one length from ridge to eaves of terraced overhang. The terrace is 6 ft. 6 in. (2 metres) wide at both front and rear of bungalow. *Termite Proofing:* All joints in the structure are caulked with a termite-resisting compound, and the fibre board and fibre glass used are both materials which have been termite-proofed during manufacture. Any penetration of termites through the wall construction is prevented by the bitumen barrier between the metal skin and the panel filling.

Plumbing : All plumbing is provided, and a complete electrical installation is incorporated.



View along the terrace.

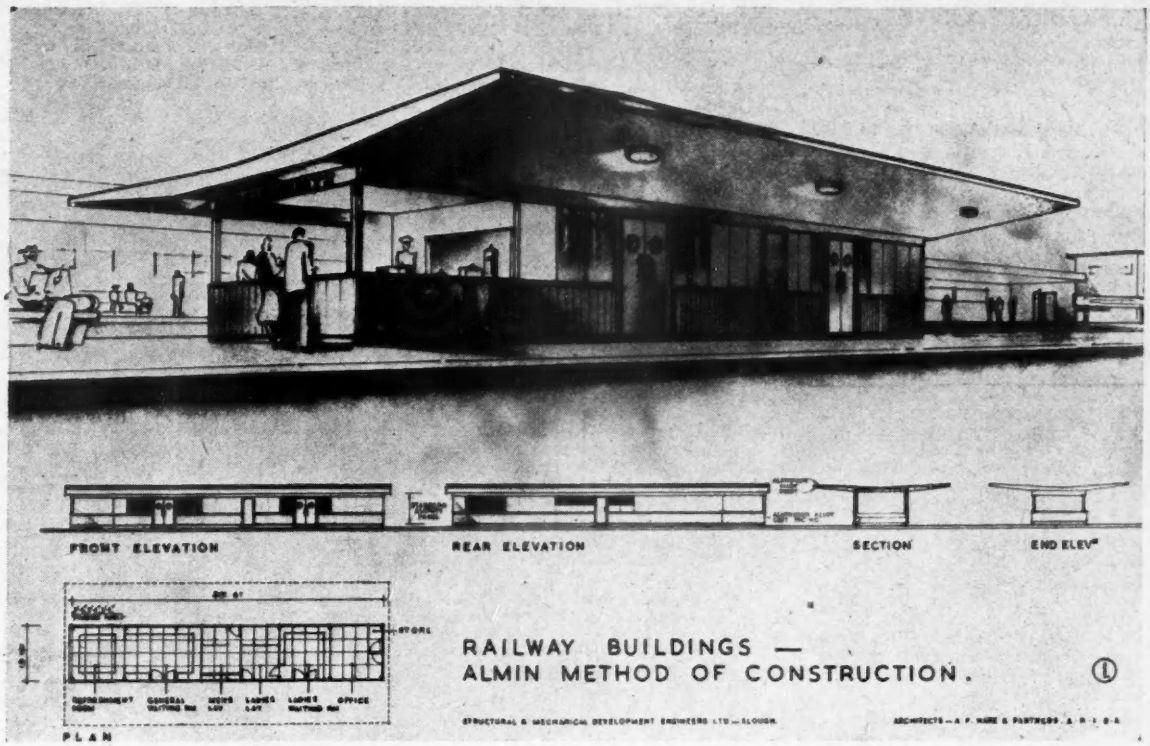


A PERMANENT PREFABRICATED TROPICAL HOSTEL

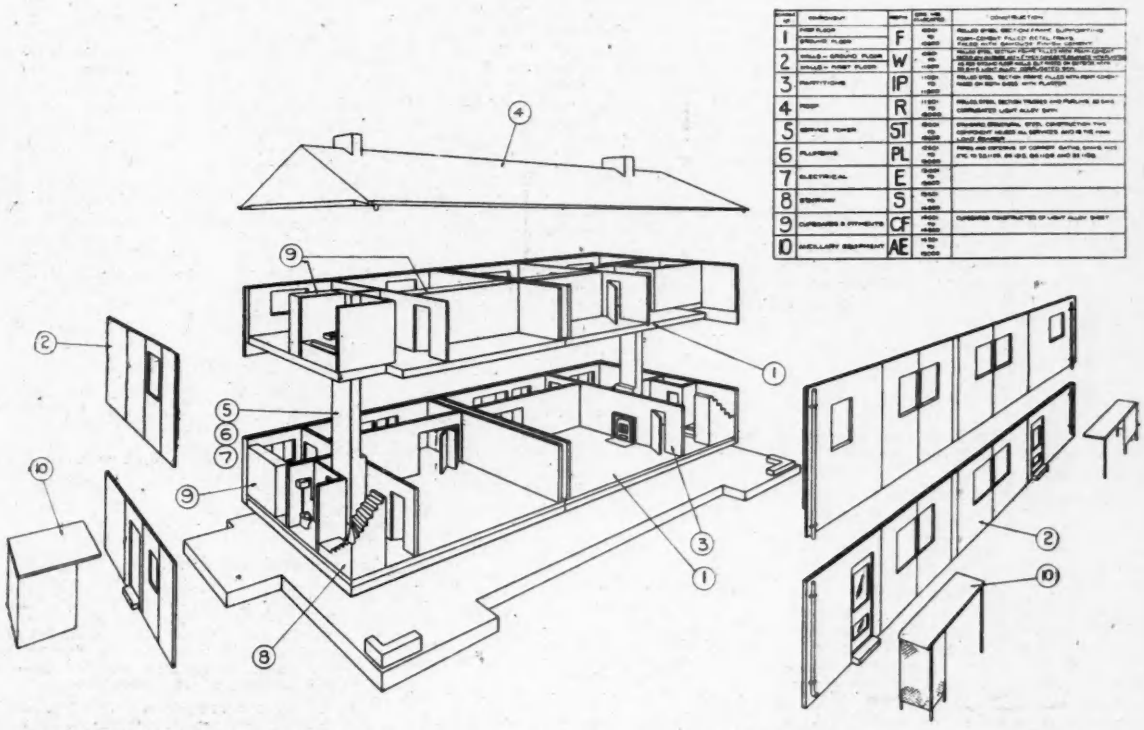
British Industries Fair.

Three of the largest exhibition buildings in the world will house the British Industries Fair, which will be held in London and Birmingham from May 5 to 16. The London section, covering the lighter industries, will occupy Earls Court and Olympia, and in Birmingham the engineering and hardware section will be situated at Castle Bromwich.

Total attendance at all three centres during the last British Industries Fair was 340,871, including nearly 7,000 overseas buyers from 77 countries.



RAILWAY WAITING AND REFRESHMENT ROOM. A. F. HARE & PARTNERS, A.R.I.B.A., ARCHITECTS



A DIAGRAMMATIC ARRANGEMENT OF A TWO-STOREY "ALCRETE" ALUMINIUM HOUSE

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Trade Unionism and the R.I.B.A.

To the Editor of *The Builder*.

Sir,—I have noticed in *The Builder* for March 14 a statement from the Secretary of the A.B.T. under the above heading. It may be interesting to recall that it was the same body which last year took upon themselves the duty of advising the members of the R.I.B.A. which nominations to the Council they should support. It was interesting to see that only one of their selection was successful. It now appears, however, that the A.B.T. are wondering if the R.I.B.A. should be allowed to exist at all. Despite the stupidity of their letter, I feel I cannot let the opportunity pass without correcting a number of obvious errors. The crux of the matter is contained in the opening paragraph, which states—"In our view, the R.I.B.A. cannot act (as a trade union) for employee architects for the following reasons :—

(1) The R.I.B.A. is, firstly, a learned and academic body concerned in important questions of technique, education, etc. Secondly, it is a professional organisation, based on the private practitioner. These are its two dominant activities, and not the economic interests of its members;

(2) It contains employers in full membership and not only in full membership but in highly influential positions. The economic interests of salaried architects and employing architects are necessarily opposed;

(3) It cannot represent the many thousands of architectural assistants who do not qualify academically for membership but whose salaries and conditions are interdependent with those of salaried architects."

There seems to be some confusion here that only a trade union is capable of talking salaries :—

(1) Quite obviously the R.I.B.A. is not a professional body based on the private practitioner. It is a democratic organisation run for the benefit of the majority of its members, all of whom are architects with some degree of proficiency in the art of building. In short, they are building technicians, and the majority are salaried. Whilst the R.I.B.A. has a leaning to the academic, its Form of Contract was a pretty good effort of "academie," and commanded more than a small amount of respect from the building trade as a whole;

(2) Of course, it contains members in high influential positions; they are men of intelligence and culture, and not without some business ability. Is Ernie Bevin a worse trade unionist because he happens to be the Foreign Secretary, a position which even the A.B.T. might concede as influential?;

(3) It does more than represent the thousands of architectural assistants, it safeguards them; and what is more does a great deal to help those who have not qualified, but wish to do so, through its Educational Committee, etc.

Since, therefore, there is no real substance in the allegations from the Secretary of the A.B.T., there is no point in pursuing further the other points raised, but, and this is by far the most important point, there is a certain lethargy amongst the members of the R.I.B.A. in making the Institute a truly representative body of their ideals. To say the salaried architects are not represented is foolish when the President himself is a salaried man and obviously understands fully the problems of this majority group in the R.I.B.A. But what I can never understand is why only 10 per cent. of members take the trouble to vote for the Council. There are hundreds of excuses, but at bottom only laziness and lethargy are really to blame. There is a tendency to feel that with registration the R.I.B.A. is obsolete and nothing more than a rather badly run club. Now, whilst this is true to some extent, there is no doubt that the R.I.B.A. is well respected by other professions and Government bodies. It has the best architectural library in England, which the very people the A.B.T. claims to look after can use for ten shillings a year; the members' room is now open, and very comfortable it is, too, and very soon refreshments will be available (I hope). In short, there is a well-forged weapon, a little rusty, perhaps, but ready to be polished and sharpened, and put to whatever use the members wish, if they will take the trouble to vote for the nominations to the Council which come nearest to the type of person who they feel will best represent their particular interest, whether political or æsthetic, or even both.

To the salaried members I would say this, "Don't be ashamed of being a salaried architect and don't waste the opportunity at the Council elections of registering your vote in favour of the nomination that seems to come nearest to your own state of mind." Whilst wages, working hours, bonuses are important, do not lose sight of the main purpose of architecture. It is in itself a way of life and way of thinking, not something one does between nine o'clock and five o'clock, and is then put away until morning. With the shortage of architects and draughtsmen it is up to us all to give the best we can, and the sooner we realise the future of England and the Empire is at stake then the sooner it will be secured. Let us try to feel, too, with Paul Valerie, when he puts these words into the mouth of his architect, Eupalinos : "The more I meditate on my art, the more I practise it; the more I think and act; the more I suffer and rejoice as an architect; and the more I feel my own being with an ever-surer delight and clarity. I go astray in my long spells of waiting; I find myself again by the surprises I give myself; by these successive degrees of my silence, I advance in my own edification; and I draw near to such exact correspondence between my aims and my powers, that I seem to myself to have made of the existence that was given me a sort of human handiwork. By dint of constructing, I truly believe that I have constructed myself."

Winston Walker,
A.R.I.B.A., A.A.Dipl.

Chelsea, S.W.3.

*** A reply from the Royal Institute of British Architects to the A.B.T. memorandum is on page 323.

Brick Prices.

To the Editor of *The Builder*.

Sir,—In the correspondence columns of your issue of March 14, Mr. W. Robinson complains of increases in the price of bricks and suggests that "it is high time that the Government controlled these advances."

The price of common bricks has been controlled since November 1, 1943, by the Bricks (Range of Prices) (No. 1) Order dated October 13, 1943.

Incidentally, this Order fixes not only the maximum prices at which bricks may be sold by manufacturers and merchants, but also the *minimum* prices.

Mr. Robinson refers to advances made up to 12s. 6d. per 1,000 from March 1. The last Amended Order making any increase was dated October 16, 1946, and the advance in price was 6d. per 1,000.

C. W. D. Rowe,
Managing Director, London Brick Co., Ltd.

London, W.C.2.

To the Editor of *The Builder*.

Sir,—I have noted with interest the reply of Mr. Dudley Vernon, Press and Information Officer of the Ministry of Works, to my letter in your issue of March 14.

He states that no increases in prices of common building bricks have been authorised since October, 1946.

I give below a copy of a letter which I, and presumably other builders, received on March 4. It is self-explanatory.

Hall and Co., Ltd., Builders' Merchants, Mill Road, Epsom.

CAN/G. March 3, 1947.

Dear Sir,—We are advised from the Sussex and Dorking Brick Co., Ltd., that owing to increased cost of production the following increases will apply as from March 1 :—

	Per 1,000 s. d.
Warnham Common Pressed. Seconds	3 6
Southwater Engineering. 1st, 2nd and 3rd	11 6
Lingfield Engineering Wire Cuts	7 0
Dorking hand-made Multi-colour facings	12 6
Dorking Pressed purple best, firsts	10 3
Dorking Pressed purple bests, seconds	10 3

W. Robinson.

Ashtead, Surrey.

Civil Building Licences.

To the Editor of *The Builder*.

Sir,—We have been informed by the local authorities that it is now the practice for building licences to be sent direct to the builder and the owner of the property after application has been made by the architect, the architect thus being ignored completely, no notification being given to him of such licence being granted.

This appears to us a very bad state of affairs and one that should be remedied immediately, as it puts the architect in a very poor light when he has either (*a*) to approach his client to ascertain whether a licence has been granted, or (*b*) worse still, approach the builder for the same reason.

We desire to make strong protest against this.

For Morris and Riley.
S. Morris.

Liverpool, 3.

BOOKS RECEIVED

Towards a New Architecture. By Le Corbusier. (London : The Architectural Press.) Price 15s. net.

The Law of Building and Engineering Contracts. By Alfred A. Hudson. (London : Sweet and Maxwell Ltd.) Price 75s. net.

Recent British Standards.

A revised edition of the standards for the Nomenclature of Timbers (B.S. 881 and 589, 1946) has just been published by the British Standards Institution. Copies of the publication can be obtained from the Sales Department, British Standards Institution, 28, Victoria-street, S.W.1, price 7s. 6d. Also published is "B.S.S. for Humidity of the Air (Definitions, Formulæ and Constants)," B.S. No. 1339, 1946, price 2s., post free.

LANDSCAPE ARCHITECTS

THEIR PLACE IN THE DEVELOPMENT OF NEW TOWNS

THE part that landscape architects will play in the development of New Towns was discussed by Mr. Gordon Stephenson, F.R.I.B.A., in the course of a recent lecture to the Institute of Landscape Architects.

Mr. Stephenson said : It is necessary to define landscape architecture in its broadest sense. It is in an American dictionary one finds the best definition of the role of the landscape architect. Webster says the landscape architect is "one whose profession is so to arrange the effects of natural scenery over a given tract as to produce the best æsthetic effect, considering the use to which the tract is to be put." The last few words are all important. Landscape architecture is not an abstract art; it is an integral part of design in town and country. In towns it cannot be separated from the underlying social and economic factors which determine form and design. The planner, architect, engineer and landscape architect must work together to create the general scene, and every detailed setting for all human activities, if we are to achieve unity in design and a fitting expression of physical and spiritual well-being.

In the 18th century unity in design was achieved in an England which was essentially aristocratic. It was a great age in all the arts. It was during this period the modern English landscape was created. Capital flowed into the land from the urban commercial centres —the very centres which in more recent times threaten to destroy the beauty created by their capital investment.

The manufacturing towns grew at increasing speed through the 18th and 19th centuries. Trevelyan in his "Social History of England" describes the countryside at the beginning of the 19th century. "When Waterloo was fought, rural England was still in its unspoilt beauty, and most English towns were either handsome or picturesque. The factory regions were a small part of the whole but unluckily were a model for the future. A new type of urban community was permitted to grow up which it was fatally easy to imitate on an ever increasing scale, until in another hundred years the great majority of Englishmen were dwellers in mean streets.

"When, as the 19th century advanced, local government was gradually made to attend to its duties, by being subjected to democratic local election and to central control from Whitehall, then indeed large provision was made for health, convenience and education. But even after these belated reforms in the utilitarian sphere, ugliness remains a quality of the modern city, rendered acceptable by custom to a public that can imagine only what it has seen."

A Squalid Legacy.

The "new towns" of the 19th century are now a squalid and massive legacy. The first half of the 20th century has seen their accelerated and sprawling growth in formless suburbs. We are now faced with the urgent reconstruction of the heart of every industrial town. As a first step in the process of redevelopment part of the congested population will move to new industrial towns, planned not only for convenience and social well-being but with as much care and forethought as preceded the design of 18th-century rural England.

The Greater London Plan underlined the need for New Towns. In three first-rate documents the Reith Committee set out the principles which should govern the establishment of New Towns. In 1946 the New Towns Act set the stage for the comprehensive design of 20th-century towns.

In the next ten years 20 New Towns to accommodate 1,000,000 people will probably be under way. In the second half of the 20th century Britain may show the world town design as effective as the design of the countryside in the golden 18th century.

The New Towns will be green and pleasant places. In them people will live in carefully planned residential neighbourhoods with shops, community buildings, pubs, churches, schools, etc., within five minutes walk of the furthest homes. Parkway systems will run through the towns. The main roads will not run through residential areas but in the parkways between them. The industrial area will be designed for maximum efficiency with a spacious section of the town with tree-lined streets, lawns, flowers and green spaces for rest and recreation.

Tidy Yet Exciting.

The central area will be designed for maximum safety and convenience. It will be tidy yet exciting and contain the most important public and recreational buildings, shops, offices and the cultural centre.

On all New Town sites the survey will show quite clearly that some parts should be included in the major open space system. They may be existing woodlands or parks surrounding country houses; they may be small valleys including streams; they may be flat pastures suitable for playing fields. There may be patches of good land which should go to allotments and market gardens. All these should be woven into a balanced open space system. It should be possible to arrange the pattern so that people can walk through and about the town in land which is free of buildings and roads. The major open spaces should be complementary to and link up with the local or neighbourhood open spaces—the school playing fields and the children's playgrounds as well as the recreational places for people of all ages.

IN PARLIAMENT

Licences for Painting.

Replying to MR. SKINNARD, MR. KEY said that in order to avoid unemployment among painters, especially during the winter months, local authorities were asked early this year to give special attention to the issue of licences for essential painting work, particularly internal painting.

Building Operatives.

MR. OSBORNE asked the Minister of Labour if he would consult the National Federation of Building Trades Operatives in order to institute a scheme of payment-by-results wages, and so hasten the building of urgently needed working-class houses.

MR. ISAACS said that this question had already been discussed with the National Federation of Building Trades Operatives, and the matter was now under consideration by both sides of the industry.

Haulage of Bricks.

MR. D. MARSHALL asked the Minister of Health to what extent his department assisted local authorities to meet the extra cost incurred by their building contractors in the direct haulage of bricks, as opposed to rail and local haulage, when railways were unable to handle the traffic.

MR. EDWARDS said that there were no funds at the disposal of the Minister from which any such contribution could be made.

Private Enterprise Houses.

MR. LIPSON asked the Minister of Health if the increased maximum price of £1,300 for houses built by private builders outside the London region would apply to houses not commenced before February 25 and not only to those not licensed before that date.

MR. L. J. EDWARDS said that conditions which had been attached to a licence already issued could not be varied, but where a licence was no longer valid because building had not started within the prescribed time limit of two months it would be open to a local authority to vary the conditions in issuing a new licence.

TRADE UNIONISM AND THE R.I.B.A.

THE following reply to the statement on this subject, issued recently by the A.B.T. and published in our issue for March 14, has been made by the R.I.B.A. :—

The statement recently published by the Association of Building Technicians may give rise to certain misconceptions in the minds of the profession, and it is therefore considered desirable to publish a note on this question of negotiations relating to salaries and conditions of service for members of the R.I.B.A. who comprise the greater proportion of registered architects in the United Kingdom.

An analysis of the figures of the Architects Registration Council of the United Kingdom, dated October 31, 1946, indicates that of the 15,045 registered architects on that date 8,431 were members of the R.I.B.A., and, in addition, 971, although not themselves directly members of the R.I.B.A., were members of societies allied to the R.I.B.A. Of the 15,045 registered architects, only 620 were members of the A.B.T.

The R.I.B.A. recognises the advantage of an organisation fully representative of any trade, vocation or profession to promote and protect the welfare of the members of that trade, vocation or profession, and in this respect it recognises the beneficial work of trade unions in the past, nor would it dispute the right of individual architects to join a trade union if they so wished; but it cannot agree that membership of a trade union should be made a condition of employment of any salaried architect, nor will it concede the right to the A.B.T. to represent the architectural profession as a whole in negotiations affecting salaries and conditions of service.

The R.I.B.A. is a professional body and a learned society, but not a "registered trade union." It has, therefore, a dual responsibility; (*a*) towards the public, to insist on a proper standard of qualifications for its members; and (*b*) towards its members, to ensure that the conditions of service and the remuneration of those in salaried positions correspond to their qualifications. The A.B.T. does not demand any standard of qualification for entry to its membership, nor does it demand that professional qualification shall be a criterion in assessing rates of remuneration.

The R.I.B.A. does contain employers in full membership as well as salaried architects, but it denies that the interests of these two categories are in any way opposed, and indeed it considers that homogeneous membership of this nature is an element of strength.

The R.I.B.A. has been approached recently by a number of large groups of members for the extension of the services it now provides in negotiation, and these requests confirm the Institute in its decision to continue the help and assistance it has given in the past to salaried members by means of the negotiating machinery it has set up.

At the same time, the Institute does not for one moment deny the right of the A.B.T. to champion the cause of its members. The R.I.B.A. would welcome the renewal of its co-operation.

USE OF MECHANICAL PLANT IN HOUSE-BUILDING

JOINT COMMITTEE'S REPORT

A JOINT COMMITTEE of the Association of Scientific Workers and the Association of Building Technicians have issued a joint report on the "Use of Mechanical Plant in House-Building." Following is the full text :—

Before the war, the technique of house-building was largely traditional, and for some operations the traditional methods had remained virtually unchanged for thousands of years. There was an adequate supply of skilled labour for the work that was undertaken, and the saving of time in house erection was not considered to be a matter of the first importance. In fact, the conditions were not sufficiently pressing to persuade builders to embark on an extensive programme of modernisation in technique. Now, however, there is an acute shortage of all kinds of building labour and there is a very great need to build houses quickly. This situation demands modernisation of technique, and the purpose of this paper is to review briefly some ways in which mechanical plant can assist the present housing drive, and to consider some of the problems associated with the mechanisation of building processes.

It is appreciated that a treatment of mechanisation by itself must be, to a certain extent, unreal. The problem of building a house quickly and at a minimum of cost is solved by a joint consideration of mechanical plant, site organisation and the materials of construction. Furthermore, the way in which a house is to be built closely affects the design of the house, especially where new techniques of construction open up new possibilities of design. It is important, therefore, to bear in mind that the specific problems of mechanisation must be related to the wider background of inter-connected problems.

Mechanical Plant.

Much of the mechanical plant available in this country at the present time was designed primarily not for house-building work but for use on civil engineering contracts or in factories. Thus, the plant tends to be either too big or else not robust enough to withstand the conditions that exist on a building site. However, there is quite a lot of plant that has been shown to be of value, and also new plant is beginning to appear designed to meet the particular needs of house-builders. A list of the types of plant at present available is given in the Appendix, the items being grouped according to the different operations that are to be carried out.

It will be seen that in the groups covering "earth moving" and "materials handling," very nearly complete mechanisation is already possible. This is important because it is estimated that in the building of a traditional type house the weight of earth and materials handled (including re-handling) is in the order of 600 tons. It is also very necessary, since it is evident that the present shortage of labourers will not be relieved, but will become a permanent feature of the industry.

The tools listed under "constructional techniques" appear at first sight to cover the majority of constructional operations. However, most of the tools affect only a part of the operation for which they are used, and do not, in fact, alter the traditional technique. Research and development are needed to provide satisfactory mechanical means of carrying out complete operations. It should be noted also that on well-organised sites, the cutting and shaping of timber can often be better carried out in a site workshop than by using power-operated hand tools on the job itself.

Equipment for overcoming weather conditions has been sadly neglected in this country, but the urgency of the housing programme has made it desirable as a means of avoiding a waste of valuable building time, and the introduction of the guaranteed week has made it desirable economically. Artificial light on building sites can be provided quite easily, but development is needed to produce satisfactory and economic equipment to overcome rain and cold.

Mechanical plant for processing materials appears to be quite adequate and it is widely used. However, this group is assuming less importance as the present tendency is for the processing to be carried out in the factory rather than on the building site. Even so, equipment for "drying out" houses is urgently required.

With regard to the provision of power on building sites, there is a variety of portable plant available, and the release of stocks from the Services should ensure adequate quantities. It is considered, however, that on any building site where the houses are to be supplied eventually from electric mains, generators should not be necessary; proper planning should be able to ensure that mains power is available from the earliest stages of building construction. This procedure would not only dispense with the need for generators but would also give wider scope to the designer of mechanical plant by virtue of the greater freedom enjoyed when a supply of electrical power can be assured.

Foreign Practice.

Having examined the mechanical plant that is available in this country, it is worth while mentioning a few of the salient points in foreign practice. The greatest developments in the mechanisation of building processes have taken place in America, with the result that the output per man-hour is considerably higher there than in the United Kingdom. The report by the Mission sent to investigate methods of building in the U.S.A. draws particular attention to the extensive use of small hand-power tools, particularly in the carpentry trade. (In this country, such practice is hardly justified, owing to the acute timber shortage.) Other examples cited include the wide use of truck-mixed concrete, truck-mounted cranes, and the complete mechanisation of road construction. Emphasis is laid on the superior organisation of mechanical plant in the U.S.A. as exemplified by the attention paid to maintenance and to the reduction of idle machine time.

In the Soviet Union, the problems are rather different: the reconstruction required is so vast in scope that it can only be met by simplifying site operations to such an extent that a large proportion of unskilled and volunteer labour can be employed. Buildings are still largely in wood, and prefabricated methods of construction are being applied as far as possible. The mechanical plant used is mostly of the civil engineering type, comprising excavators, bull-dozers and other equipment for site clearance. In addition, machines are being developed both for cleaning and restoring salvaged materials, and for making use of salvage for the production of new building materials. It is instructive to note that Soviet organisation does not provide for a centralised plant pool because of the wide variety of conditions that exist, but it does include a most important facility—the provision of special shops for the repair and renewal of plant.

In Europe generally, machines are being developed to turn bomb rubble into suitable building materials and to prepare old but undamaged bricks for re-use. A particular feature of Swiss practice is that the cheapness of electricity makes possible the extensive use of electric power on building sites.

Probably the most useful lesson that this country can learn from abroad is the importance of the proper organisation of plant, both in the way in which it is used and also in the care given to its maintenance. This point leads to consideration of the general problems associated with an extended use of mechanisation.

Organisation.

For mechanisation to be most effective it is generally necessary that it should be as complete as possible, so that the whole process of building a house is speeded up. Furthermore, it shows the best results when the site to which it is applied is a large one. Mechanisation demands planned delivery of materials, efficient site organisation and accurate programming. As an example, consider the use of a mechanical elevator to raise bricks from the ground to scaffold height. Even the simplest of such elevators is able to handle bricks much faster than the number of bricklayers that can be employed on a single house can lay them. It is therefore necessary, in order to reduce idle machine time, to load up the scaffold of one house, then to move on and repeat the process at subsequent houses, and finally to return to the first house to repeat the whole cycle. This implies very detailed organisation, which will include the correct positioning of the stacks of bricks in relation to each house and also the programming of the job to suit the machine. Furthermore, such a procedure calls for the mechanisation of other building processes, so that the use of the machine may show not only a reduction in labour costs, but also an increase in the speed of house production.

Another matter of great importance which comes under the general heading of organisation is the question of plant maintenance. The depreciation that must be allowed on mechanical plant at present used on building sites is much greater than it need be, due to the rapid deterioration caused by lack of adequate maintenance. Machinery cannot be expected to run continuously unless a regular maintenance schedule is enforced and unless suitably trained personnel are available to carry out this schedule.

Cost.

The capital outlay necessary for mechanisation is substantial, and is beyond the capacity of all but the bigger contractors. Large plant is generally hired, but it is unreasonable to expect the hire-firms to speculate on the newer small- and medium-sized plant that is becoming available to meet house-building needs. It is felt that consideration might be given to the setting up by the appropriate Government Department of plant pools from which all types of builders' plant would be available at hire rates consistent with those that could be charged by a non-profit-making concern. Such an organisation would assist the introduction of new plant and would also be able to ensure that all plant would be satisfactorily maintained. The local authorities might well become the agents for such a pool. It is realised that this proposal raises many issues which need careful investigation, but it is suggested that the advantages which might arise deserve serious attention.

A particular instance where action would seem to be called for arises in the case of the new towns. The development Corporations are charged with ensuring that the construction of the new towns should be as rapid as possible. It is suggested, there-

fore, that each Corporation should consider setting up its own pool of builders' plant and ensuring that the maximum possible use is made of mechanisation.

Trade Unions.

Mechanisation raises many points that are of particular importance to the building trade unions, and it is considered that joint consideration of the problems by scientists, building technicians and operatives would be of considerable value. It is clear that mechanisation cannot be acceptable unless the workers themselves gain their share of the extra profits obtained, and unless they receive real proof of the effectiveness of the full-employment policy. After acceptance, the most important steps to be taken by the building trades unions concern modifications to building workers' training schemes. Details are outside the scope of this paper and should be worked out between the unions and other organisations concerned.

SUMMARY OF ACTION ARISING

1. It is important that the mechanical plant that is available should be used as widely as possible.

2. It is essential that site organisation be improved and expanded to meet the demands of mechanisation, and particularly to ensure that mechanical plant is adequately maintained.

3. Consideration should be given to a Government-sponsored plant-hire scheme.

4. Development Corporations for the new towns should encourage mechanisation by setting up their own pools of mechanical plant.

APPENDIX.

Available Types of Mechanical Plant Suitable for House-Building.

1. Earth Moving. — Excavators for foundation construction or the laying of drains and services. Available types include multi-bucket, both continuous chain and wheel, single bucket, and plough. Bull-dozers, angle-dozers, scrapers, with various attachments for the site clearance or the back-filling of trenches.

2. Materials Handling.—Dumpers for placing foundation concrete. Concrete pump for pouring foundations or concrete structures. Mobile tower hoists for raising bricks, mortar, blocks, concrete, etc. Continuous chain bucket elevator for bricks or mortar. Special stillage and truck for transporting bricks. Special bin and truck for transporting mortar. Cranes for handling slabs and other heavy or bulky units. Roller conveyors for handling slabs and other heavy units. Cranes with special skips for concrete pouring.

3. Constructional Techniques. — Pile-driver for pile foundations, where these are necessary. Rising or unit scaffolding to maintain the bricklayer's work at optimum height. Building jigs to speed up and simplify brick or block laying. Mortar box to speed the laying of mortar in bricklaying. Pointing guns. Plaster box to simplify the application of plaster. Cement gun equipment for covering large areas with a thin layer of cement. External rendering equipments to provide various types of external finish. Wall-paper machine to trim, cut and paste wall-paper in a single operation. Craftsmen's electric or pneumatic hand tools. This includes such tools as drills, saws, planes, screw-drivers, nut-runners, sanders, chisels, hammers, brick-cutters, shears, etc. Paint-sprayers for large surface areas.

4. Overcoming Weather Conditions.—Ready-made equipment does not exist, but much can be done by means of improvisation. Temporary covers, site lighting, and pre-heating of concrete could all be provided.

5. Processing of Materials.—Concrete, mortar and plaster mixers driven by petrol engine or electricity.

6. Provision of Power.—Various sizes of compressor for driving pneumatic tools and sprayers. Various sizes of electric generator for site lighting or to drive power tools. In most cases this plant can be made unnecessary by providing mains power from the earliest stages on building sites.

LAW REPORT

THE STEVENAGE NEW TOWN SCHEME. SUCCESSFUL APPEAL BY THE MINISTER

Court of Appeal.

Before Lord Oaksey (Lord Justice) and Lords Justices Morton and Tucker.

Franklin and Others v. Minister of Town and Country Planning.

This was an appeal by Mr. Silkin, the Minister of Town and Country Planning, from the judgment of Mr. Justice Henn Collins in the King's Bench Division quashing the Minister's Order dated November 11, 1946, approving the Stevenage New Town (Designation) Order, 1946.

The objectors who challenged the Minister's Order were Mr. W. V. Franklin, of Rook's Nest Farm, Stevenage; Mr. G. L. Hearn, of Corey's Mount, Stevenage, and Mr. M. R. Tetley, of The Priory, Stevenage. His lordship decided that these objectors had satisfied him that the Minister had not on the controversy between himself, as Minister, and the objectors, as complainants, a mind open to conviction, but had meant to confirm his Order whatever the force of the objections, trusting that some solution would be found. As that involved a denial of natural justice, the Order must be quashed.

From this result the Minister now appealed.

The Attorney-General (Sir Hartley Shawcross, K.C.) (with him Mr. H. L. Parker), in support of the appeal, contended that Mr. Justice Henn Collins's judgment was wrong in law and that his conclusions of fact on the evidence were not justified. In particular, there was no evidence to justify the judge's finding of bias against the Minister.

Proceeding, counsel submitted that even if the position of the Minister was a quasi-judicial one, it only meant that within the procedure laid down by the New Towns Act, 1946, the Minister had to act fairly. The Minister's position under the Act was administrative rather than judicial. It was the national interest which was the over-riding consideration, and though the Minister might come to the conclusion that in a particular case the objections were so strong as to be virtually unanswerable, yet in the national interest they must be put on one side.

Mr. Arthur Capewell, K.C. (with him Mr. G. D. Squibb), supported the judgment of Mr. Justice Henn Collins on behalf of the objectors.

At the conclusion of the arguments the court allowed the appeal.

Lord Oaksey, giving judgment, dealt with the allegation that the Minister was biased and that the speech he had made at Stevenage before the Act of 1946 was passed showed that he and the Government had then made up their minds that Stevenage was to be one of the new towns. He (his lordship) said that Mr. Justice Henn Collins had based his findings of bias in the Minister on the objections concerning water supply and disposal of sewage, but it was never suggested that the question of water supply had presented an impracticable project. Mr. Justice Henn Collins was right in holding that the onus was on the objectors to show that the Minister had not had an open mind when he made the Order. In his lordship's opinion the evidence relating to sewage disposal and water supply afforded no evidence of bias against the Minister. It was clear that when a site for a new town was designated, all the problems could not be gone into and decided in detail.

On the question raised as to the public inquiry held at Stevenage not being as prescribed by the Act because no representative of the Minister was present, no witnesses called on his behalf, and no case in support of the designation of Stevenage as the site for a new town had been put forward, there was no obligation on the inspector holding the inquiry to insist on having the case in favour of the Order put forward, and the only obligation on the Minister after the inquiry had been held was to consider fairly and in good faith the report of the official who held it.

Proceeding, his lordship said he expressed no opinion on the policy of the Act. That was not a matter for the court. In his opinion, the evidence relied on by the judge as to bias in the Minister did not support that finding, and consequently the objectors had not discharged the onus which was on them of showing that the Minister was biased when he made his Order. In these circumstances the appeal would be allowed.

The other members of the court concurred.

The objectors were given leave to appeal from the judgment, provided the petition to do so was lodged within four weeks.

OUR BUILDING LOSSES

NATIONAL FEDERATION PRESIDENT'S APPEAL

An appeal to the building industry to increase production by one-third over the rest of the year in order to make good the loss due to weather conditions during the past three months was made this week by Mr. E. J. Smith, of Cardiff, President of the National Federation of Building Trades Employers, speaking at the annual meeting of the Midland Federation in Birmingham.

"If the output on the site could be increased by one-third," said Mr. Smith, "and I firmly believe it could be, provided the materials are available, the enormous loss which we have suffered during recent weeks, and which the country has not yet begun to realise, could be made good. Frost, floods and the fuel crisis have made nonsense of the building programme for 1947. Houses unbuilt, factories not erected, schools not even started: that is the sorry story. For many weeks past the building industry has been kept in enforced and very unwelcome idleness. Employers and employed have both suffered, but the country has suffered far more. Is it too much to ask that we should now set to and make good the wastage? And is an increase in production of one-third too much to ask, when we remember that even that increase would probably leave us below the industry's 1938 production level.

"The need for increased output, which both sides of the industry are pledged to secure, has been made increasingly urgent by the recent loss of construction. How much has been lost no one yet knows, but it has obviously been enormous. Building employers recognise the urgency of the problem, and the National Federation which represents them has accepted the principle of incentives as one of the means of solving it. We are now trying to find a way to put that principle into practice at the earliest possible moment. To work out a system of incentives in a complex industry like building, where work is carried out not in factories but on sites with widely differing conditions, each of them affected by each of the thousand-and-one operations to be carried out, is far from simple. But a solution must be found, and found quickly. It probably lies in focusing attention on general principles, rather than in the formation of a detailed and rigid national scheme."

SOFTWOOD TIMBER

BOARD OF TRADE EXPLAINS

An abstract of the situation with regard to the supply of softwood timber has recently been issued by the Board of Trade. Following are abstracts from the report:—

The White Paper on the Housing Programme (Cmd. 7021), in its reference to timber, predicted that the existing serious shortage would continue. It is now certain that no relief may be expected in the first half of 1947 and—in the absence of favourable developments—unlikely that the turn of the year will show a marked improvement in general supply.

What is the Board of Trade Timber Control doing to secure for Great Britain a maximum share of overseas production? A mission, headed by the Timber Control, has visited Canada and has had consultations with the Canadian authorities. Canada—her Government and her great lumber industry—responded magnificently during the war to the claims for timber imposed upon her by the Mother country. This, despite the needs of her highly geared war industry. She is responding no less generously to aid our reconstruction, and it is hoped that the 1947 import of Canadian softwood into the United Kingdom will be in excess of that of 1946. The mission has also visited U.S.A. Discussions are now in progress with the Soviet Trade Delegation and with the Governments of Finland, Yugoslavia, Czechoslovakia and Austria. Timber Control is in day-to-day contact with Sweden, and it is hoped soon to reach a stage of more detailed negotiations. These negotiations will be complicated by the knowledge that Sweden must obtain more coal if she is to produce more sawn softwood for export, and Finland needs iron and steel in order to fulfil her reparation obligations to Russia. The position in Rumania and Poland remains difficult.

Softwood Stocks.

Many softwood imports are seasonal and must be concentrated into the period when overseas ports of shipment are free of ice. Suitable conditions normally occur between May and November. As a measure of prudence, therefore, stock in the United Kingdom is built up to a peak in December and largely exhausted during the succeeding five months. Experience gained during the war suggested that a breakdown of distribution might follow in the late Spring if stock at December 31 fell much below 500,000-550,000 standards. On December 31, 1945, it stood at 563,000 standards; on December 31, 1946, at the dangerously low level of 214,000 standards. In considering this last figure it must be recognised that it embraces a fair percentage of wood in sizes and specifications suited only to specialised and not to general usage. It is inevitable, therefore, that holders of licences will have increasing difficulties in locating the sort of supply which they need.

In conclusion, the report states: Users of timber have shown a patience which, in the face of continued frustration and restriction, is exemplary. They have recognised the difficulties and, through their industrial organisations, have been co-operative and helpful. The outlook for the moment is not promising, but the timber potential of the world is vast. A small percentage improvement in world production would ensure to Britain a supply comparable with pre-war import, subject, of course, to our ability to provide the main supplying countries with the goods they need for their own requirements.

Building Science Abstracts.

Building Science Abstracts Nos. 6 and 7 (Nos. 739-865 and 866-1,004) have recently been published by the Department of Scientific and Industrial Research. Copies, price 1s. 6d. net each, are obtainable from H.M. Stationery Office.

FIRES FOR NEW HOUSES

APPROVED DESIGNS

Better designed and more economical fires, stoves and cookers are to be installed in new houses as a result of research into appliances which burn solid fuel. Some are already being produced on a large scale.

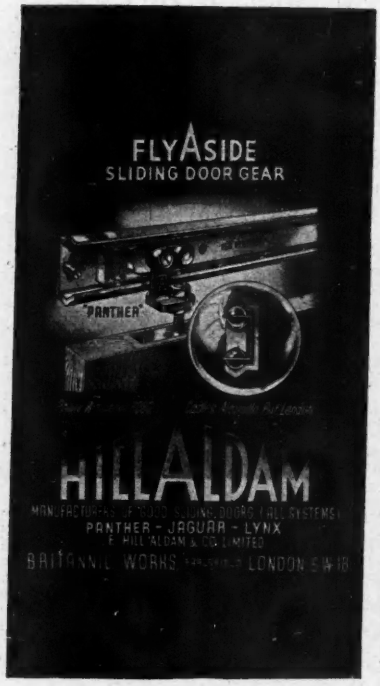
The Minister of Health, Mr. Aneurin Bevan, has sent housing authorities a list of post-war types which have been approved by the Department of Scientific and Industrial Research and by the fuel engineers of the Ministry of Fuel and Power, so that authorities can consider them for their new houses. More appliances are being tested, and additions will be made to the list, which includes open fires (with or without back boilers), continuous-burning open fires with back boilers, openable stoves and continuous-burning cookers.

The Ministry of Fuel and Power is shortly to open permanent exhibitions of recommended solid fuel appliances in London and Glasgow. In the meantime, the Minister of Health has notified local authorities that the appliances can be seen at the showroom of the Women's Advisory Committee on Solid Fuel, 18, South Molton-street, London, W.1.

The following are the types of approved appliance which have been recommended to local authorities: Openable stoves (inset type) with back boilers; continuous-burning open fires with back boilers (with or without convection); improved open fires with back boilers (with or without convection); improved open fires without back boilers. Cookers: Continuous-burning, with boilers:—(a) semi-insulated—continuous-burning free-standing, with boilers; (b) combination grate—continuous-burning, with boiler; (c) back-to-back grate—continuous-burning, with boiler.

Fifth Year as President.

At the 27th annual general meeting of the British Electrical Development Association, held in London, the Rt. Hon. Lord Brabazon of Tara, P.C., M.C., was elected President for the fifth year in succession. Sir Leonard Pearce, C.B.E., D.Sc., was elected Vice-President.



PRODUCTION FORUM

"Economic and Social Causes for Drop in Output"

To the Editor of *The Builder*

Sir,—I feel I must write with reference to the letter published in *The Builder* for March 21, signed E. Carran.

I am the manager of a building firm with headquarters in London and have had considerable experience in dealing with various types of building work in that area. During the war and since I have employed operatives upon contracts comprising bomb damage repairs, temporary housing and permanent housing and flats, and I have no hesitation whatever in saying that, in my opinion, the output on all of these jobs has been very much lower than was obtained before the year 1939.

I see that Mr. Carran refers to "attempts to make the building worker work harder." Surely a better description would be "attempts to make the building worker work less slowly." As to his amazing statement that the workers employed in the building industry are "craftsmen of a very high order," I only wish he could have seen the majority of the specimens we have had to employ recently, not only upon bomb damage repairs but upon temporary housing and permanent housing contracts. They cannot possess the high degree of intelligence with which Mr. Carran credits them, otherwise they surely would not persist in their policy of "go slow," which is deliberately sabotaging the efforts of the present Government who were, after all, elected to power to help such people as them.

I know of one permanent housing job in London to-day which will provide accommodation, when and if it is ever completed, for hundreds of families, upon which at no time has the rate of bricklaying exceeded 200 bricks per day per man. As Sid Field would say—"What a performance!"

Edward W. Cordery.

London, W.1.

Building Firm's Production Plans

Some of the plans being made for improving methods of working and for securing a greater drive on housing sites in the north-west are mentioned in *Cubitt's News*, the weekly news-sheet of Messrs. Holland and Hannen and Cubitts, Ltd., Liverpool.

"We are pleased to record," it states, "that we are achieving a very good close working arrangement with several of the authorities by whom we are employed, and that at Wrexham we are shortly to obtain even greater unity than before. We have proposed joint fortnightly progress meetings, at which the officials of the Wrexham Borough Council and the Wrexham Rural District Council will be present, together with our representatives, and, we hope, an official of the Welsh Board of Health. These meetings will be held for the sole purpose of trying to speed completion of all B.I.S.F. houses in the Wrexham area, and every effort will be made to bring into the open all the snags and difficulties which hinder progress of the work, and to try to find the proper solutions.

"In addition to these regular meetings, we are giving the question of double day shifts a considerable amount of thought. It may be possible to introduce a second shift on some operations, and if this is possible we shall be interested to know the reactions of the men on the jobs. The housing problem is acute, and we are driven to the inevitable conclusion that the maximum use must be made of the months when daylight hours are longest."

RATES OF WAGES IN THE BUILDING TRADE

(Every endeavour is made to ensure accuracy, but we cannot be responsible for errors)

KEY TO SCHEDULE OF GRADE RATES.

Grade Classification.	A	A1	A2	A3
Craftsmen	2/6	2/5½	2/5	2/4½
Labourers	2/–	1/11½	1/11½	1/11

Town.	Grade.
Aberavon	A
Aberdare	A
Abergavenny	A
Abingdon	A2
Accrington	A
Addlestone	A
Aldeburgh	A3
Aldershot District	A2
Alfreton U.D.	A
Alnwick	A1
Altrincham	A
Amble	A1
Amersham	A1
Ammanford	A
Andover	A2
Ardingly	A2
Arundel	A2
Ascot	A2
Ashby-de-la-Zouch U.D.	A
Ashby Woulds U.D.	A
Ashford (Kent)	A2
Ashford (Middlesex)	A
Ashington	A
Ashtead	A
Ashton-under-Lyne	A
Aspatria and Brayton	A2
Atherstone	A2
Aylesbury	A2
Aylesby	A
Aylsham	A3
Bagshot	A2
Bakewell U.D.	A2
Banbury	A2
Barnard Castle U.D.	A1
Barnoldswick U.D.	A2
Barnsley	A
Barrow-in-Furness	A
Barrow-upon-Soar R.D. (exc. Thrussington A2)	A
Barry	A
Basford R.D. (exc. Willoughby-on-the-Wolds A2)	A
Basingstoke	A2
Bath	A1
Batley	A
Baxterley	A1
Beaconsfield & District	A1
Beamish	A
Bearl	A
Bearpark	A
Beccles	A3
Bedale R.D.	A
Bedford	A
Bedlington	A
Bedwas	A
Beeston & Stapleford U.D.	A
Belper U.D.	A
Belton	A
Berkhamstead	A1
Berrington	A1
Berwick District	A1
Beverley	A
Bexhill-on-Sea	A2
Biggleswade	A2
Billericay	A1
Billing	A
Billingham U.D.	A
Bilsthorpe	A
Birchington	A2
Birkenhead	*
Birmingham C.B.	†A
Bishop Auckland	A
Bishop's Stortford	A1
Bispham	A
Blackburn	A
Blackpool	A
Blackwell R.D.	A
Blaydon U.D.	A
Blidworth	A
Blyth	A
Bognor Regis	A2
Boldon U.D.	A
Bolsover U.D.	A
Bolton	A
Bourne End	A1
Bournemouth District	A1
Bracknell	A2
Bradford	A
Bradford-on-Avon	A2
Braintree	A2
Breconshire, County of	‡A3
Brent Knoll	A2
Brentwood	† A
Bridlington	A1
Brierfield	A
Brighouse	A
Brighton	A1
Bristol	A
Broadstairs	A2
Bromsgrove U D.	A1
Brough	A
Broughton (Cheshire)	A
Buckley	A
Bungay	A3
Burnham-on-Crouch	A3
Burnley	A
Burton-on-Trent C.B.	A
Bury	A
Bury St. Edmunds	A3
Buxton	A1
Byfleet	A1
Calder Valley	A
Cambridge	A
Cannock U.D.	A
Canterbury	A2
Cardiff	A
Cardiganshire, County of	‡A3
Carlisle	A
Carmarthenshire, Cnty. of	‡A3
Carnarvonshire, Cnty. of	‡A3
Carnforth	A
Castleford	A
Caterham	A
Chapel-en-le-Frith	A1
Charmy Down	A1
Chatham & District	A1
Cheadle (Staffs.) R.D.	A
Chelmsford	A
Cheltenham	A1
Chepstow	A1
Chertsey	A
Chester	A
Chesterfield M.B.	A
Chesterfield R.D.	A
Chester-le-Street U.D.	A
Chichester	A2
Chippenham (inc. Chippenham Within and Hardenhuish)	A2
Chorley	A
Clacton	A1
Cleethorpes	A
Clevedon	A1
Cleveleys	A
Clitheroe	A
Coalville U.D.	A
Cobham (Surrey)	A
Colchester	A
Colne	A
Colwyn Bay	A2
Congleton	A1
Consett	A
Conway	A2
Cornwall, County of	‡A3
Coventry C.B.	A
Cranbrook	A2
Cranleigh	A2
Crawley (Sussex)	A2
Crewe	A1
Cromer	A1
Crowborough	A2
Cuckfield	A2
Dalton-in-Furness	A
Darlington District	A
Darwen	A
Deal	A2
Denbigh Town	A2
Derby C.B.	A
Devizes	A2
Devon, County of	‡A2
Dewsbury	A
Didcot	A2
Diss	A3
Doncaster	A
Dorking	A1
Dorset, County of (excepting Poole and Wimborne A1)	A3
Dover	A2
Dovercourt	A1
Driffield U.D.	A1
Droitwich M.B.	A1
Dudley M.B.	A
Dunstable	A
Durham City	A
Eastbourne	A1
E. Glam. & Mon. Val.	A
East Grinstead District	A2
Eastwood (Notts.) U.D.	A
Ebbw Vale & District	A
Edenbridge	A2
Ely	A3
Epping	A
Exeter	A1
Fakenham	A3
Falmouth	A2
Fareham	A
Faversham	A2
Felixstowe	A1
Filey U.D.	A1
Fleetwood	A
Flint	A
Folkestone	A2
Frinton	A1
Frome	A1
Gainsborough U.D.	A1
Gateshead	A
Gillingham (Kent)	A1
Glossop	A
Gloucester	A1
Gloucestershire, Cnty. of	‡A2
Godalming	A2
Goole	A
Gosport	A
Grantham M.B.	A1
Gravesend	A
Great Yarmouth	A1
Grimsby	A
Guildford District	A2
Guilsborough	A1
Guiseley	A
Halesowen M.B.	A
Halifax	A
Halstead	A2
Haresfield	A1
Harlow	A1
Harpenden	A1
Harrogate	A
Hartlepools	A
Harwich	A1
Haslemere	A2
Hastings	A2
Hatfield	A
Haywards Heath	A2
Hemel Hempstead	A1
Henley-on-Thames	A2
Hereford	A2
Herefordshire, Cnty. of	‡A3
Herne Bay	A2
Hertford	A
Hexham	A
Heysham	A
High Wycombe	A1
Highworth	A2
Hinckley U.D.	A
Hitchin	A1
Hoddesdon	A
Holt (Norfolk)	A3
Horley	A2
Horsham	A2
Horwich	A
Huddersfield	A
Hull	A
Hunstanton	A2
Huntingdon	A3
Ilkley	A
Ingatestone	A1
Ipswich	A
Isle of Sheppey	A2
Isle of Thanet	A2
Isle of Wight	A3
Jarrow B.	A
Keighley	A
Kendal	A
Kenilworth U.D.	A
Kettering M.B.	A
Keynsham	A
Kidderminster M.B.	A1
King's Lynn	A2
Kingskerswell	A1
Kingsteignton	A1
Kirkham	A
Knaresborough U.D.	A
Knowle	A1
Lancaster	A
Leamington M.B.	A
Leatherhead	A
Leeds	A
Leicester C.B.	A
Leighton Buzzard	A2
Letchworth	A1
Lewes	A2
Lichfield M.B.	A1
Lincoln C.B.	A
Littlehampton	A2
Liverpool	*
Llandudno	A2
Llanelly	A
London	*
Long Eaton	A
Loughborough M.B.	A
Louth M.B.	A3
Lowestoft	A1
Loxton	A2
Luton	A
Lyneham (Devon)	A1
Macclesfield	A1
Maidenhead	A1
Maidstone	A1
Maltby	A
Maldon (Essex)	A2
Malvern U.D.	A2
Manchester	A
Manningtree	A1
Mansfield M.B.	A
March	A2
Margate	A2
Market Harborough	A1
Maryport	A
Matlock U.D.	A1
Melksham	A2
Melton Constable	A3
Melton Mowbray U.D.	A2
Merthyr	A
Middlesbrough	A
Middleton	A
Middlewich	A1
Milford Haven	A2
Morecambe	A
Morley	A
Mundesley	A2
Nantwich	A1
Nelson	A
Newark-on-Trent R.D.	A1
Newbury	A2
Newcastle-on-Tyne	A
Newcastle-under-Lyme	A
New Forest District	A2
Newmarket	A2
Newport, Mon	A
Newport Pagnell	A2
Newton Abbot	A1
Northallerton Dist.	A
Northampton C.B.	A
North Shields	A
Norton Radstock	A1
Norwich	A
Nottingham C.B.	A
Nuneaton M.B.	A
Oakham U.D.	A3
Oldham	A
Ongar	A
Ormskirk	A
Ossett and Horbury	A
Oxford	A1
Oxted	A1
Paignton	A1
Peterborough	A
,, Soke	A1
Pickering	A3
Plymouth	A
Pontefract	A
Pontypridd District	A
Portishead	A
Portland Stoneyards	A
Portsmouth	A
Port Talbot	A
Preston	A
Pudsey	A
Pulborough	A2
Radnorshire, County of	‡A3
Ramsgate	A2
Rayleigh	A1
Reading	A1
Redcar B.	A
Redditch U.D.	A1
Redhill and Reigate	A
Ripon	A3
Rochdale	A
Rochester	A1
Rotherham	A
Rugby M.B.	A
Saffron Walden	A2
St. Albans	A
St. Helens	A
St. Neots	A2
Salisbury City	A2
Salisbury Plain	A2
Sawbridgeworth	A1
Saxmundham	A3
Scarborough	A1
Scunthorpe	A
Selby	A
Sevenoaks	A1
Sheerness	A2
Sheffield	A
Shipley	A
Shoeburyness	A
Shoreham	A2
Shrewsbury M.B.	A
Sittingbourne	A2
Skegness U.D.	A1
Skipton U.D.	A2
Sleaford U.D.	A3
Slough	A1
Smethwick C.B.	†A
Snettisham	A2
Somerset, County of	‡A3
Southampton	A
Southend-on-Sea Dist.	A
Southport	A
South Shields C.B.	A
Spalding U.D.	A2
Stafford M.B.	A
Staines	A
Stamford M.B.	A1
Stantonwick	A
Stevenage	A1
Stockport	A
Stockton R.D.	A
Stockton-on-Tees	A
Stoke-on-Trent C.B.	A
Stoke Orchard	A1
Stourbridge M.B.	A
Stourport U.D.	A1
Stowmarket	A3
Stratford-on-Avon M.B.	A1
Sunderland District	A
Sunningdale	A1
Sutton Coldfield M.B.	A
Swaffham	A3
Swanage	A3
Swansea	A
Swindon	A2
Swinton U.D.	A
Tamworth M.B.	A
Tenterden	A2
Tewkesbury	A1
Thames Haven	A
Thetford	A3
Thorpe Bay	A1
Thurrock U.D.C. Area	A
,, North of, to Billericay	A1
Tilbury	A
Todmorden	A
Tonbridge	A1
Torquay	A1
Totnes	A1
Trowbridge	A2
Tunbridge Wells	A1
Tynemouth C.B.	A
Uppingham (Salop)	A1
Uttoxeter U.D.	A2
Wakefield	A
Wallsend B.	A
Walsall C.B.	A
Walsden	A
Walton-on-Naze	A1
Ware	A
Warminster	A2
Warrington	A
Warwick M.B.	A
Wellington R.D.	A1
Wells (Norfolk)	A3
Welwyn	A
Welwyn Gar. City	A
West Bromwich C.B.	A
Westbury	A2
Westcliff-on-Sea	A
Westerham	A1
Weston-super-Mare	A1
Weybridge	A
Weymouth	A2
Whitby	A2
Whitstable and District	A2
Wickford	A1
Widnes	A
Wigan	A
Wigton	A3
Willington	A
Wilmslow	A
Wilts, County of	‡A3
Winchester	A2
Windermere	A3
Windsor and Eton	A1
Wisbech	A2
Witham	A2
Woking (District)	A1
Wokingham	A2
Wolverhampton C.B.	A
Woodbridge	A3
Worcester C.B.	A
Workington	A
Worksop M.B.	A1
Worthing	A2
Wrexham (incl. Cefn)	A
Wroughton	A2
Wylam	A
Wymondham	A3
York	A

* For Birkenhead Liverpool, and London the rates are :—Craftsmen, 2s. 7½d. ; Labourers, 2s. 1½d. In the case of London the rate beyond the 12-mile radius is :—Craftsmen, 2s 7d. ; Labourers, 2s. 1d.

† Plus 2d. per working day.

‡ This is the County rate and applies except where higher grades are stated.

NOTE.—Carpenters, Joiners and Plumbers in all towns and districts receive 2d. per day Tool Allowances.

WOMEN'S RATES.—In all districts throughout the country the rate of wages for women engaged in craft processes is 1s. 9d. per hour. Women introduced to carry out work other than craft processes, 1s. 5½d. per hour.

For Building Trade Wages in Scotland, see page 329.

PRICES CURRENT OF MATERIALS*

NOTE.—These prices apply to large quantities of materials at works at London stations, or site, in London area as stated. Prices for smaller quantities ex merchant's warehouse will of course be higher. Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery.

BRICKS, &c.

	£ s. d.
First Hard Stocks	6 10 0
Second Hard Stocks	6 0 0
Mild Stocks	5 5 0

All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job.

	Certain London L.M.S. Stations per 1,000.	Sites in PBMA Area, N. of Thames per 1,000.
2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	s. d.	s. d.
Pressed	70 0	85 0
Keyed	72 0	87 0
Single Bullnose	90 0	105 0
Rustics	90 0	105 0
Whites	90 0	105 0

	£ s. d.
Best blue Pressed Staffs. (London Stns.)	14 11 0
Do. Bullnose (London Stns.)	15 1 9
Blue Wire Cuts (London Stns.)	13 6 6

Best Stourbridge Fire Brick (London Stns.) :—

£ s. d.	£ s. d.
2½ in. 13 3 6	3 in. 15 16 6

Glazed Bricks (London Stns.). Add 33⅓% to Prices.

Best White Ivory and Salt Glazed Stretcher	30 0 0	D'ble Str'tch'rs.. D'ble Headers One side & two ends	38 10 0 35 10 0 39 10 0
Headers	29 10 0	Two sides & one end	40 10 0
Quoins, Bullnose and 4½ in. Flats	36 10 0	Splays and Squints	38 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.
12 miles radius Charing Cross.

HOLLOW CLAY PARTITION BLOCKS.
London Brick Company.

Minimum Lorry Loads. Keyed.	s. d.
2" per yd. sup. 120 yds.	2 9
2½ " " 110 "	3 0
3" " 100 "	3 7
4" " 84 "	4 1

Half blocks *add* 2s. per yard super to above prices.

CLINKER CONCRETE.

2" per yd. sup.	3 2	3" per yd. sup.	4 2
2½ " "	3 8	4" " "	5 3

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 9
Size 12 x 9 x 2½" " "	3 0
Size 12 x 9 x 3" " "	3 7
Size 12 x 9 x 4" " "	4 1

HEMPSTEAD—KEYED TWO SIDES.

12 x 9 x 2"	2 9	12 x 9 x 3"	3 7
12 x 9 x 2½"	3 0	12 x 9 x 4"	4 1

Per yard super d/d. Free on site, London.

Plus 2d. for smooth one side, and 4d. for smooth both sides.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	4 1½
BEER STONE—RANDOM BLOCK—	
Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. "	3 1½
Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.	
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R. per ft. cube	4 7½
Do. do. delivered on road waggons as above stations per ft. cub.	4 7½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ¼d. beyond 30 ft.	
HOPTON-WOOD STONE—	
F.O.R. Quarries, Wirksworth, Derbyshire. Random blocks from 10ft. and over p.ft.cb.	13 2
Sawn two sides	26 11
Sawn three or four sides	31 11
YORK STONE, BLUE—*Robin Hood Quality*.	
Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super) per ft. super	8 0
6 in. rubbed two sides, ditto "	9 4
3 in. sawn two sides slabs (random sizes) "	3 10
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) "	2 0
1½ in. to 2 in. ditto	1 9½
HARD YORK—	
Delivered at any Goods Station, London.	
Scrappled random blocks per ft. cube	12 0
6 in. sawn two sides landings to sizes (under 40 ft. super) per ft. super	8 10
6 in. rubbed two sides, ditto "	10 6
4 in. sawn two sides slabs (random sizes) "	5 8
3 in. ditto ditto "	4 3
2 in. self-faced random flags per yd. super	16 0

CAST STONE.

Delivered in London area in full van loads, per ft. cube : Plain, 10s. ; Moulded, 12s. 6d.
Small section cills and copings, 15s.

SAND.

Thames Ballast	12s. 6d. per yd.	delivered 2 miles radius Paddington.
Pit Ballast	10s. 9d. " "	
Pit Sand	13s. 0d. " "	
Washed Sand	16s. 0d. " "	
¼ in. shingle	13s. 0d. " "	
¼ in. Broken Brick	17s. 3d. " "	
Pan Breeze	10s. 9d. " "	

CEMENT.

	£ s. d.
Best British Portland Cement. Standard Specification, delivered London area.	
6 ton loads and upwards site per ton	2 15 0
1 to 6 tons site	2 18 0
In paper bags or non-returnable jute sacks 7s. net per ton of cement extra.	
"Ferrocrete" Rapid Hardening Cement 6 ton loads and upwards site	3 1 0
1 to 6 tons site	3 4 0
In paper bags 7s. per ton extra.	
"Aquacrete" Water Repellent cement, 31/6 per ton on ordinary "Blue Circle" prices. In paper bags 7s. per ton extra.	
Rapid Hardening "Colorcrete" in 6-ton lots	4 16 6
In paper bags 7s. per ton extra.	
"Colorcrete" not rapid-hardening, according to colour. In 4 ton lots from 166/6 to 390/6 per ton according to colour (including paper bags).	
"Snowcrete" White Portland Cement (in free paper bags)	11 6 6
Under one ton per cwt.	0 13 4
"417" Cement (Ultra Rapid Hardening) Delivered Site London Area in 6 ton lots and upwards	3 16 6
In paper bags 7s. per ton extra.	
Super Cement (Waterproof), bags extra	4 8 6
Cullamix Tyrolean Finish .... £7 9 0 to (1 ton lots and upwards, including cost of Paper Bags.)	9 2 6

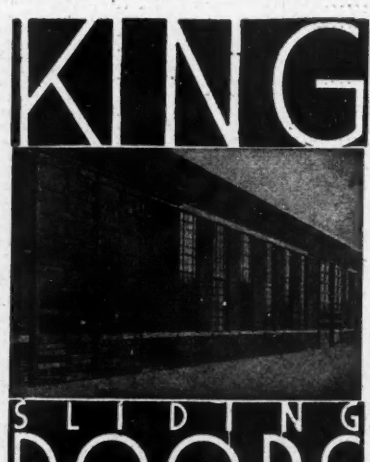
£ s. d.	£ s. d.
Roman Cement 8 10 0	Keen's Cement, White 7 10 6
Parian Cement.. 7 10 6	" " Pink 7 4 6

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station.

Per 1,000 actual	£ s. d.		£ s. d.
24 by 12	59 2 6	18 by 10	30 18 0
22 by 12	47 14 0	18 by 9	28 18 6
22 by 11	43 6 0	16 by 10	27 12 0
20 by 12	42 1 3	16 by 8	21 7 6
20 by 10	38 11 3		

NOTE : Breakage in transit, purchasers' responsibility.



Above photo shows two pairs of a range of King Sliding Doors, erected at a large modern factory. Note particularly extreme height and heavy construction. All over the country leading firms have installed King Sliding Doors, and found them to give long and satisfactory service.

GEO. W. KING LTD.
HITCHIN HERTS

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 7 0	Sirapite, Coarse	4 11 6
" White	4 16 6	" Finish	4 19 6

Above prices for 1-ton loads and over London Area.

Best Ground Blue		Grey Stone Lime	3 11 0
Lias Lime	3 7 6	Chalk Lime	3 11 0
Granite Chippings	2 8 0	Hair per cwt.	3 10 0

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d. if returned in good condition within three months, carriage paid.
Stourbridge Fireclay in paper bags, £3 4s. 0d., 6-ton lots at railway depot.

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	£8 4 0
Ditto hand-made ditto	9 1 9
Ornamental ditto	9 11 3
Hip and valley tiles—Hand-made (per dozen) —Machine-made	Per 1,000 17 8 16 8

NOTE.—Breakage in transit, purchasers' responsibility.

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	s. d.		s. d.	Foot cube. £ s. d.
Dry English Wainscot Billets	16 0	to	0 18 0	
Dry Slavonian Billet Wainscot	17 0	to	1 0 0	
Dry Cuba Mahogany logs	21 0	to	1 4 0	
Square-edged Honduras Mahogany				0 16 6
Log Cut Honduras Mahogany				0 17 6
American Figured Oak				0 13 0
American Plain Oak				0 12 6
Jap Figured Oak				0 13 0
Jap Plain Oak				0 12 6
Teak				0 15 6
American Whitewood				0 12 6
African Whitewood				0 8 0
African Mahogany				0 11 0
Australian Walnut				0 19 0
Australian Silky Oak				0 12 6
Best Scotch Glue per cwt.				7 0 0
Liquid Glue per gallon				2 2 0

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN.

	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes		
2in. by 3in. by 4in. by 11in.	55 10 0	66 10 0

PLANED BOARDS.
PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard £ s. d.
1 in. by 11 in. } 1 in. by 9 in. }	79 10 0
	Per square. s. d.
1 in. plain edge flooring	64 9
1¼ in. ditto	81 3
1 in. tongued and grooved	64 9
1¼ in. ditto	81 3

MATCHING.

	Per square. s. d.
¾ in.	45 6
¾ in.	51 6
1 in.	67 6

PLUMBERS' BRASS WORK.

Delivered in London.
M.O.H.

S.D. BIBCOCKS CRUTCH HEAD, FOR IRON.
½ in. 61/6 ¾ in. 104/6 per doz.
TOILET BIB COCKS FOR IRON.
½ in. 95/6 ¾ in. 157/- per doz.
S.D. STOP COCKS FOR IRON.
¼ in. ⅜ in. ½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
67/6 107/6 174/- 245/- 330/- 537/- per doz.
S.D.S. COCKS WITH TWO UNIONS FOR LEAD.
¼ in. ⅜ in. ½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
102/6 164/- 264/6 369/- 438/- 736/- per doz.
DOUBLE NUT BOILER SCREWS.
¼ in. ⅜ in. ½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
15/- 19/- 31/- 66/- 102/- 130/- per doz.
HEAVY CROYDON BALL VALVES.
¼ in. ⅜ in. ½ in. ¾ in. 1 in. 1¼ in. 1½ in.
85/- 135/6 169/- 338/- 455/- per doz.
CAPS AND SCREWS.
½ in. 1¼ in. 2 in. 3 in. 3½ in. 4 in.
21/6 24/6 41/- 61/6 82/- 102/6 per doz.
BRASS SLEEVES.
½ in. 2 in. 3 in. 3½ in 4 in.
24/6 29/- 63/6 80/- 98/6 per doz.
LEAD TRAPS WITH BRASS CLEANING SCREWS.
1¼ × 6 lb. 1¼ × 6 lb. 2 × 7 lb. 3 × 7 lb.
Lead P. 49/- 61/6 98/6 133/- per doz.
Lead S. 58/6 74/- 120/- 139/- per doz.
SOLDER.—Plumbers', 2/4, Tinmen's, 3/-, Blow pipe 3/2 per lb.
Copper Tubes....2/0½ per lb. Basis.
Brass Tubes....2/0½ lb. Basis.
Basis prices are subject to extras.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(*contd.*)

See Note at top of preceding page.

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—

	£	s.	d.
R. S. Joists, cut and fitted	28	0	0
Plain Compound Girders	32	10	0
" Stanchions	40	0	0
In Roof Work	50	0	0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£	s.	d.	Diameter.	£	s.	d.
¼ in.	24	5	0	½ in.	22	15	0
⅜ in.	23	15	0	⅝ in. to 2¼ in.	22	5	0
⅞ in.	23	5	0				

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½% gross.

Tubes, Tubulars, and 10/17 Flanges.

	½"/6"	¾"/6"	1"/6"	19/24"	1¼"/2"	2½"/6"
	%	%	%	%	%	%
Light weight	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv. lightweight	30	—	30	30	30
Galv. heavyweight	20	20	20	20	20

Tubes and tubulars sizes ½"/⅞" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS.—London Works, per yd. in 6 ft. lengths.

	Gutters.	Nozzles.	Stop ends.
3 in.	2/2	1/11	6½d.
3½ in.	2/5½	2/2	6½d.
4 in.	2/5½	2/3½	10½d.
4½ in.	2/10	2/7½	11½d.
5 in.	3/1	3/–	1/3

O.G. GUTTERS.

3 in.	2/10	2/6½	7½d.
3½ in.	3/2	2/6½	10½d.
4 in.	3/2	2/7½	11½d.
4½ in.	3/4	3/1	1/3
5 in.	4/–	3/7	1/4

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends. Angles.	Branches.
2 in.	4/6	2/4	3/6
2½ in.	4/8	2/8	4/–
3 in.	5/3	3/5	4/11
3½ in.	6/–	3/11	5/9
4 in.	6/11	4/9	6/11

NET PRICES.

Tonnage allowance—4-ton lots, 5 per cent.
2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES.—London Prices, ex stock.

Per yd. in 6 fts.	Pipe.	Bends.	Branches.
2 in.	5/5	4/1	5/–
2½ in.	5/8	4/7	6/2
3 in.	6/3	5/–	7/5
3½ in.	7/1	6/2	8/7
4 in.	8/1	6/11	10/–

L.C.C. COATED DRAIN PIPE.

cwt. qr. lbs. in 9 fts.	per yard.	Bends.	Branches.
4 in. 1 1 17	10/8	9/8	16/11
6 in. 2 0 1	15/10	20/–	34/8

Per ton basis in London.

	£	s.	d.
IRON.—Staffordshire Crown, Merchant quality	24	10	0
IRON.—Staffordshire Marked Bars	25	5	0
Mild Steel Bars	20	10	0
Mild Steel Hoops	22	7	6

Ex Merchant's Stock.

per ton (two-ton lots).	£	s.	d.
Soft Steel Sheets, C.R. and C.A.—			
20 gauge	26	5	0
24 gauge	27	5	0
26 gauge	28	5	0
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—			
20 gauge	29	12	6
24 gauge	31	7	6
26 gauge	33	12	6
Galvanised Flat Sheets, C.R. and C.A.—			
20 gauge	30	12	6
24 gauge	32	7	6
26 gauge	34	12	6

Per ton.

	£	s.	d.
Cut Nails, 3 in. and up	31	10	0

ALL NET.

METAL WINDOWS.—Standard sizes suitable for complete houses, included all fittings, painting two coats, and delivery to job, average price about 4s. 6d. to 4s. 9d. per foot super.

LEAD, &c.

(Delivered in London 5 cwts.) Per ton.	£	s.	d.
LEAD.—Sheet, English, 3½ lb. and up	85	0	0
Pipe in coils	86	0	0
Soil pipe	89	0	0
Compo pipe	91	10	0

NOTE.—Country delivery, 10/– per ton extra, lots under 3 cwt. 4/– per cwt. extra and over 3 cwt. and under 5 cwt., 3/– per cwt. extra. Extra if cut to size. Old lead, ex London area, per ton £53 0 0. Buyers pay carriage.

BUILDING TRADE WAGES IN SCOTLAND

Following are grade rates authorised by the Scottish N.J.C. from January 1, 1946. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification A Craftsmen ..... 2/6 Labourers 2/-

Aberdeen ..... A	Dumfriesshire .... A	Inverness ..... A	Perthshire ..... A
Ayrshire ..... A	Dundee ..... A	Inverurie ..... A	Peterhead ..... A
Banff ..... A	Dunoon ..... A	Kincardineshire .. A	Renfrewshire ..... A
Berwickshire ..... A	East Fife ..... A	Kinross-shire ..... A	Rothesay ..... A
Bridge of Allan .... A	East Lothian ..... A	Lanarkshire ..... A	Roxburghshire .... A
Broughty Ferry .... A	Edinburgh ..... A	Midlothian ..... A	St. Andrews .... A
Clackmannanshire A	Fifeshire ..... A	Monifieth ..... A	Selkirkshire ..... A
Doune ..... A	Forfarshire ..... A	Moray and Nairn .. A	Stewartry ..... A
Dunblane ..... A	Glasgow ..... A	Newport ..... A	Stirlingshire ..... A
Dumbartonshire .. A	Greenock ..... A	Peeblesshire ..... A	Stornoway ..... A
Dumfries ..... A	Hamilton ..... A	Perth ..... A	Tayport ..... A
			West Lothian .... A

The Scottish N.J.C. award on which this is based does not provide for any variation to current rates of Apprentices' wages, which will be considered by the General Council of the Apprenticeship Scheme. The information given in this table is copyright.

Painters' rates : 2/6 Grade A ; 2/5 Grade B. (Grade B towns are Banff and Moray and Nairn).

GLASS.

SHEET GLASS, ORDINARY GLAZING QUALITY CUT SIZES.

Per ft. super.	d.
18 oz.	3½
24 oz. Clear	5½
26 oz.	6½
32 oz.	8½

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds. Per ft.	
Rolled plate, ¼ in.	6½
Rough cast double rolled, ⅛ in.	7½
Rough cast double rolled, ¼ in.	7½
Figure rolled, and Cathedral, white	7½
Figured rolled and Cathedral, tinted	10½
Rolled sheet	6
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	11d.

Rolled plate is the same price as rough cast double rolled.

Per ft.	s.	d.
Wire Cast, ¼ in. thick	0	9½
Georgian Wired Cast	0	10½

HOLLOW GLASS BLOCKS.

	s.	d.	
P.B. 2—5½ in. × 5½ in. × 3½ in.	2	6	each net
P.B. 3—7½ in. × 7½ in. × 3½ in.	3	6	"
P.B. 32—7½ in. × 7½ in. × 3½ in.	3	6	"
Radiused Corner Brick to match up with—			
P.B. 2	4	6	"
P.B. 3	6	0	"
P.B. 32	6	0	"

PAINTS, &c.

	£	s.	d.
Raw Linseed Oil (5 galls.) .. per gallon	1	3	3
Boiled Linseed Oil (5 galls.) .. "	1	3	7
Genuine White Lead (free kegs) cwt.	6	9	0
Genuine White Lead Paint (tins free) gall.	2	5	0
Genuine Red Lead ..... cwt.	5	9	9
Putty (free packages) ..... cwt.	2	17	0
Size, XD quality ..... ftkn.	0	9	0

Turpentine substitute can be obtained and prices vary according to quality from 3/8 gallon upwards

Whenever your scheme calls for

METAL WINDOWS

built specially to suit your own requirements always specify

AYGEE

LIMITED

of

100, Westminster Bridge Road
LONDON - - S.E.1
'Phone: WATerloo 6314 (6 lines)

for

Distinctive Metal Windows

The Hall Mark AYGEE *of Craftsmanship*

THE SCOTTISH BUILDER

NEW BUILDINGS

Glasgow.—Reconstruction and additions proposed at Scotland-st., for Reid & Sons, Ltd.

Glasgow.—Alterations and additions proposed at Inglefield-st. for James Hemphill, Ltd., for which the architects are Thomas Tannahill & Son, 26-36, Oxford-st., Glasgow.

Glasgow.—Alterations and additions proposed for G. and C. Moore, Ltd., at Moredunt-st., for which the architects are Grayton and MacLean, 113, West Regent-st., Glasgow; factory proposed at Helen-st., for which the general contractors are William Baird & Sons, Ltd., Glasgow.

Stonehouse.—Extensions proposed at Advanced Division school, for which the architect is William Watt, Albert-st., Motherwell.

OFFICIAL NOTIFICATION

Paper Control: Prices.

The Board of Trade have issued the Control of Paper (No. 82) Order (H.M.S.O., 3d.), which came into force on March 31. It provides separate and increased maximum prices for imported building boards and requires merchants selling such boards to specify on the invoice that they are imported. It also provides increased maximum prices for some base papers for plastics and the maximum additions which may be made to the pre-war price of certain papers sold under Articles 2, 3, 7 and 8 of the Control of Paper (No. 63) Order are also increased.

Builders at Golf.

The Spring meeting of the Building and Allied Trades' Golfing Association will take place on Tuesday, April 29, at the Berkshire Golf Club. Singles and Fourball foursomes against bogey will be played. The Dyke Cup will be played for at this and future Spring meetings only. The charge for the day, including green fee, meals and subscription, will be £1 2s. 6d. Members, prospective and old, who wish to take part should send their names not later than April 17 to the Hon. Secretary, Mr. Hubert H. Hill, Monument Station Buildings, King William-street, E.C.4. Mr. Hill particularly asks present members who have not notified changes of address to get into touch with him.

VARNISHES, &c:

		Per gallon. £	s.	d.
Oak Varnish	Outside	1	6	0
Fine do.	"	1	16	0
Fine Copal	"	1	15	0
Pale Copal	"	1	12	8
Floor Varnish	Inside	1	10	0
Fine Pale Paper	"	2	1	0
Hard Drying Oak	"	1	10	0
Fine Hard Drying Oak	"	1	12	0
Fine Copal Varnish	"	1	13	6
Best do.	"	1	16	0
Best Japan Gold Size	"	1	15	0
Best Black Japan	"	1	8	6
Brunswick Black		1	4	6
Berlin Black		1	8	6
Knotting (patent)		1	12	6
French and Brush Polish		1	18	6
Liquid Dryers in Terebene		1	8	6

DOMESTIC FUEL POLICY

THE "SIMON" REPORT CHALLENGED

"It is not a sound policy to commit the housing programme of the country to a system of heating which may shortly become completely out of date," states the electricity supply industry in a Memorandum on the Report of the Fuel and Power Advisory Council on Domestic Fuel Policy (known as the "Simon" Report).

The Memorandum was prepared by a committee appointed by the Electricity Supply Joint Committee (representative of all municipal and company electricity supply undertakings) and by the Council of the British Electrical Development Association.

The Memorandum states that in the event of the Government acting along the lines proposed by the Advisory Council, in providing solid fuel, gas and electrical appliances, national expenditure must be seriously and wastefully increased. It is suggested that before any such action is taken, joint consultations take place between the Ministry of Fuel and Power, the other Ministries concerned, and the representatives of the electricity supply industry.

The Electricity Supply Industry challenges the formulæ used by the Advisory Council and the conclusions based upon them. Attention should be given to the trend of public opinion.

"The Advisory Council," continues the Memorandum, "appears to have overlooked the fact that, in regard to generation, distribution, new and improved appliances and methods of use and control, electricity is still passing through a rapidly moving evolutionary stage. The nature of the supply of electricity into the homes of the people will remain unaltered for all foreseeable time, but the methods of producing, distributing and using it will alter and improve. In these circumstances, it is not a sound policy to commit the housing programme of the country to a system of heating which may shortly become completely out of date."

Improved Heating Appliances.

To the suggestion that the Government should encourage the production of improved heating appliances for all fuels and for all domestic purposes, the following reply is given: "The use of solid fuel should be reduced to a minimum, to avoid costs of transport by rail, sea and road, refuse disposal, domestic labour, internal decorations, material deteriorations, and atmospheric pollution by smoke."

The Memorandum also rejects another proposal that the main winter space and water heating load should be taken by solid fuel. This proposal involved greater costs in connection with the construction of premises, transport and handling of fuel, the disposal of waste and continued atmospheric pollution. In addition, it unduly limited the use of electricity, and disregarded present and future developments.

Objection is also taken to the suggestion that intermittent space heating for short periods should be taken by gas and electricity on the ground that its application in practice on anything like a national scale might prejudice the most effective use of electricity for all purposes throughout the country. "A deliberately restrictive policy," it is claimed, "is not in the best interest of the consumer or the nation."

Change of Address.

Messrs. Spungroove, Ltd., reinforced fabric manufacturers, have removed to 3-16, Woburn-place, W.C.1. Telephone: Terminus 7879.

FEDERATION OF MASTER BUILDERS

GOVERNMENT'S HOUSING POLICY CRITICISED

CRITICISM of the Government's housing policy is contained in the annual report for 1946 of the National Council of the Federation of Master Builders.

"In spite of the urgency of the situation," the Report states, "and the great distress occasioned to the community on account of the shortage of suitable accommodation, the Government persist in their policy of frustrating free enterprise building, and the present position is that practically all new permanent dwelling-houses are being erected under contract to civic and local authorities. The consequent interminable delays in negotiations, lack of uniformity in contracts, and the manner of administering them has entirely obviated progress and the Ministry of Health's monthly reports of houses completed are out of all proportion to the vital need.

"Your Council have made repeated representations on the whole subject to the Ministry, and have also pressed for an increase in the ceiling prices for the small number of members who have been permitted to build for private sale.

"Costs are steadily increasing both in respect of materials and labour, and free enterprise building can generally only be entered into at a loss. In order to assist our numerous small builder members to retain their businesses during this most unsatisfactory period, the Federation have, through branch committees, negotiated contracts with local authorities and, as a result, an increasing number of members have undertaken new housing work. This, however, can only be a short term or immediate expedient and it is imperative that the public and the Government be brought to a realisation of the necessity for an alteration in policy. The functions of the Government Departments concerned should be directed entirely towards the manufacture and supply of necessary materials, and building left to the expert knowledge of the industry itself."

With regard to building costs, the Report states: "During the year costs of labour and material have continued to rise and it is apparent, particularly in view of the recent Government White Paper, that the problem of production within the industry has got to be solved at an early date. The Minister of Health has stated that housing costs have reached their zenith and yet we find the operatives pursuing a claim for substantial increases in basic rates of pay. While this claim has been rejected, nevertheless the solution of the existing problem must be found. Nationally, we find the Government pressing for more output, while the employee is endeavouring to achieve a five-day week. These claims do not tally or assist the present predicament with regard to labour in which the country finds itself. Our industry has suffered considerable losses of some of its finest craftsmen who have left it for all time, having sought other trades where conditions of general employment are superior. Your Council are definitely of opinion that the solution to at least the stabilisation of the position within the industry must be payment to the operative of a commensurate amount having regard to his output."

There is a big demand FOR Lister ENGINES for use in CONTRACTORS & BUILDERS EQUIPMENT

More manufacturers of this machinery have standardised on Lister Engines than on any other, because they are proven power units.
Make use of the Lister after-sales service to keep your plant running.

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DURSLEY, GLOUCESTERSHIRE

BUILDING MATERIALS AND COMPONENTS

PLASTERBOARD

By the middle of 1947, states the Ministry of Health in "Plasterboard Note No. 3," it is expected that plasterboard will be available in greater quantity for traditional housing and other building. Owing to loss of output in recent weeks, however, supplies are still limited, and it will be necessary to continue for the present the restrictions on the use of plasterboard in new houses as set out in the previous note, "Plasterboard No. 2."

Additional information is given below on the three alternatives for plasterboard that have been recommended, viz.: (i) Wood laths and lime plaster; (ii) expanded metal laths and lime plaster; (iii) insulating board.

Alternatives (*i*) *and* (*ii*): *Lath and Plaster.*—In the interests of speed of application, local authorities would be well advised to use gauged lime plaster instead of lime plaster on wood or expanded metal laths. Recommended proportions are as follows: (*a*) For gauged lime plaster for backing coats the recommended proportions of cement, lime and sand are 1:2:9 if hydrated lime is used; alternatively, one part cement to nine parts coarse stuff (composed of two parts lime putty to nine parts sand) may be used. In either case, 9 lb. of well-beaten hair should be mixed with every cubic yard of coarse stuff. (*b*) Finishing coats should consist of one part lime putty, up to one part fine washed sand, and one-fourth part of retarded hemihydrate or anhydrous gypsum plaster.

Gauged coarse stuff should in all cases be used up within two hours of the addition of cement and within 30 minutes of the addition of gypsum plaster.

Alternative (*iii*): *Insulating Board.*—The following precautions are recommended to minimise fire risk where insulating boards are proposed to ground-floor ceilings and the walls are plastered in the normal way: (i) The use of tongued and grooved floor boards on the first floor; (ii) the application of a single coat of retarded hemi-hydrate gypsum plaster or an anhydrate plaster 3-16 in. thick to the insulating board ceiling. In this event square-edged floorboards may be used. No special precautions need be taken to first-floor ceilings provided the wall surfaces are plastered in the normal way.

NEWS ITEMS

British Road Federation.

The annual report of the Management Committee of the British Road Federation states: "Whatsoever may be the outcome of the Government's proposals with regard to inland transport, the need for the Federation's unifying influence and constructive criticism will remain and grow. Although there is much to cause anxiety, the future of the Federation is viewed by the Committee with confidence."

Fuel, Power and Heat Costing.

"Fuel, Power and Heat Costing" is the title of Fuel Efficiency Bulletin No. 48, issued by the Ministry of Fuel and Power (Fuel Efficiency Committee). The bulletin directs attention to the importance of knowing the real cost of fuel, power and steam used on the works and an example of a cost statement is given. Copies are free and may be obtained from the Ministry at Queen Anne's-chambers. Dean Farrar-street, S.W.1.

National Smoke Abatement Society.

"Because of the scarcity of fuel, which results in poor quality or unsuitable coal being used in many industrial plants . . . there has been a tendency for industrial smoke emissions to increase," states the 17th annual report of the National Smoke Abatement Society. The report, which is published from the Society's central offices at Chandos House, Buckinghamgate, S.W.1, goes on to comment: "An easing of the fuel supply situation, and the provision of new plant and equipment where it is needed will make possible from the smoke prevention viewpoint the fuller fruition of the fuel efficiency campaign of the Ministry of Fuel and Power."

Toronto International Trade Fair, 1948.

An International Trade Fair will be held from May 31 to June 12, 1948, in the Canadian National Exhibition buildings in Toronto. Officially sponsored by the Canadian Government, it will be the first international trade fair ever held in the Dominion, and is expected to attract both buyers and sellers from all parts of the world. The Fair will not be open, except possibly for a limited period, to the general public.

One of the main objectives of the Fair will be to demonstrate the possibilities of increasing Canadian imports to balance an expanding Canadian export total. Applications for space in the various trade sections should be made to the Commercial Counsellor, Canada House, Trafalgar-square, London, S.W.1. Details regarding classification of exhibits, cost of space and general regulations are expected to be available shortly, when a further announcement will be made.

Asbestos-Cement Roofing Material.

The effect of many years of exposure to the weather has been simulated during tests on asbestos-cement roofing material at the Building Research Station. Specimens from existing buildings were examined as well as new materials sent by manufacturers. Results are given in "Building Research Technical Paper No. 29—Weathering Tests on Asbestos-Cement Roofing Materials," published by H.M.S.O., Kingsway, London, W.C.2 (price 1s.) The usual physical properties of strength, variation in length on wetting and drying, water absorption, etc., were covered by the investigations. Strength tests included impact strength, as well as bending and tensile strength, as this becomes a factor of some importance in roofs covered with large sheets supported at intervals on battens. The artificial weathering tests were much more severe than the conditions to which the materials are exposed in normal weathering.

Building Science Abstracts.

Building Science Abstracts Nos. 434-573, compiled by the Building Research Station, Watford, have recently been published by the Department of Scientific and Industrial Research, and copies, price 1s. 6d., are obtainable from His Majesty's Stationery Office, Kingsway, W.C.2.

Living Conditions in Trinidad.

In view of what has been published recently in the national Press with regard to the living conditions in Trinidad, it may be of interest to many of our readers to know that the employees engaged in the winning and refining of asphalt from the lake in Trinidad (referred to below as the "pitch lake") are well looked after in this respect. The following is an extract from the report to Parliament of a Commission appointed by the Secretary of State for the Colonies in 1938:—

"As a result of our visits to the pitch lake and to the model village provided for workers, we were favourably impressed with the housing accommodation and medical and other facilities afforded by the company for its labour."

We commend this statement to all local authorities and others who may be interested in the use of Trinidad Lake Asphalt, and who may perhaps have been somewhat disturbed by the reports which have been so widely circulated.

Foamed Slag Producers' Federation.

Owing to the increasing interest in foamed slag aggregate the producers of this material have, in collaboration, formed the Foamed Slag Producers' Federation to act as technical consultant on behalf of its members. The Federation will give advice to users of foamed slag on its various methods of application, and will conduct research into all branches of construction in which foamed slag can be used to advantage. The founder members of the Foamed Slag Producers' Federation are as follows:—Messrs. Appleby-Frodingham Steel Co., Scunthorpe, Lincs; Messrs. Clugston Staveley, Ltd., Staveley, near Chesterfield; Messrs. Slag Aggregates, Ltd., Santon, Scunthorpe, Lincs; Messrs. Foamslag (Tees-side Production), Ltd., Normanby Iron Works, Middlesbrough; and Messrs. Foamslag (Scottish Production), Ltd., 65, Bath-street, Glasgow. Mr. M. Gallai-Hatchard has been appointed General Manager of the Federation, whose offices are at 85-88, Grosvenor-gardens House, Grosvenor-gardens, London, S.W.1 (telephone: Victoria 1485).

BESPOKE FRAMES for SPECIAL SEATS

ARCHITECTS & BUILDERS can obtain high-class Chairs and Special Seating by specifying "FIRM-BACK CHAIRS" and "CINNAMON FRAMES" in their instructions to Furnishing Contractors

J. CINNAMON LTD

Chair Frame Makers to the Upholstering Trade

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TRADE NEWS

Generators for Builders.

The Tarpen Engineering Co., Ltd., Ixworth House, Ixworth-place, S.W.3, announce that they have resumed production of their portable petrol-electric generators and that good delivery can be given. These generators supply power at 230 v. D.C. for tools used by builders, including saws, planes, sanders, drills, etc., for wood, metal, stone, concrete and brickwork.

A Variable Stroke Plunger Pump.

A 1 in. variable stroke plunger pump, which may be put to numerous uses, is now being manufactured by Messrs. Atalanta Motors, Ltd., of Staines, and is being distributed by their sole agents for the British Isles—Messrs. Goodenough Contractors' Machinery, Ltd., of Spring Grove-road, Hounslow, Middlesex. The pump, in standard form, delivers 1,200 G.P.H. to a head of 60 ft., and then the patented variable stroke comes into action. As the load increases the stroke decreases until the pump gives 120 G.P.H. at 300 P.S.I. Messrs. Atalanta Motors, Ltd., are also making a range of portable self-priming centrifugal pumps, sizes 1 in., 1½ in., 2 in., 3 in. and 4 in.

Timber Information.

Six new Timber Information leaflets have just been issued by the Timber Development Association, bringing the series up to 30 leaflets. Titles of these new leaflets are as follows: No. 25, "Key to the Microscopical Identification of the Principal Softwoods Used in Great Britain"; No. 26, "Details of Nailed Timber Roof Truss"; No. 27, "Details of Timber Trusses, Slab Type Roof"; No. 28, "Notes on East African Timbers"; No. 29, "Notes on Chilean Timbers"; and No. 30, "Conversion Tables for Timbers, Cubic Metres, Cubic Feet and Standards." These leaflets are issued free of charge and a binder to hold them conveniently can be obtained at cost of 5s. on application to the Timber Development Association, Ltd., 75, Cannon-street, E.C.4.

FUTURE CONSTRUCTION

CONTRACTS OPEN

For some contracts still open but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

APRIL 9.

†***Bromley T.C.**—Conversion of "Woodcote," Elmstead-la., into flats. B.E.

APRIL 12.

†***Essex C.C.**—Hostel for male nurses at Essex C.C. Hospital, Broomfield. H. Conolly (F.), County A. (Est. cost, £10,000.)

†***Isle of Ely C.C.**—Kitchen and dining-hut at Wisbech St. Mary Voluntary Primary school. R. D. Robson (A.), County A. Dep. £2 2s.

†***Tintwistle R.D.C.**—10 houses at Speedwell. M. Osbaldeston, C., "Knarrside," Tintwistle, Hadfield, Manchester. Dep. £2 2s.

APRIL 14.

†*Bucks C.C.—(a) Erection of dining-hall and kitchen at Aylesbury Grammar school; (b) erection of dining-hall and kitchen at Wolverton Grammar school; (c) alterations to existing building and erection of additional accommodation at "Tylers Wood," Hazlemere, High Wycombe. Acting County Architect, Aylesbury. Dep. £2 2s. each contract. Tenders by May 8.

†Hornsey B.C.—96 flats and 6 maisonettes at Connaught and Carlton roads. B.E. and S.

Ludlow T.C.—25 pairs of Airey houses at Sandpits-la. S. N. Shrimpton & Son, Knighton, Rads. Dep. £3.

Newcastle-on-Tyne T.C.—Alterations at Low Grade Block "G," Shotley Bridge Emergency Hospital, for nurses' accommodation. City A.

Norfolk C.C.—Police station at Litcham. County A.

Wembley T.C.—65 flats at Forty-ave., with service road and all site works. Boro' Treas. Dep. £1 1s.

APRIL 15.

Matlock U.D.C.—10 houses at High-st., Bonsall. E. and S. Dep. £3 3s.

APRIL 16.

*Luton T.C.—Two blocks each of ten flats at Hart Hill estate. B.E. Dep. £2 2s.

†*West Sussex C.C.—Prefabricated hutting for County Library at Lancing. F. R. Steele (F.), County A., Chichester.

APRIL 17.

Alton R.D.C.—44 houses at 3 sites. C., 39, High-st. Dep. £3 3s.

APRIL 18.

Salford T.C.—8 houses at Eccles Old-rd., Pendleton. City E.

APRIL 19.

Glastonbury T.C.—30 houses at Windmillfield estate, site No. 1. H. N. Alves, Architect, 66, High-st., Glastonbury. Dep. £2 2s.

Margate T.C.—Contract No. 1: Two blocks of flats for old people (14 dwellings) at south side of St. Peter's footpath; Contract No. 2: 12 houses at south side of St. Peter's footpath; Contract No. 3: 20 houses at north side of St. Peter's footpath. W. L. Armstrong, B.Sc., B.E. Dep. £2 2s.

St. Austell U.D.C.—10 houses at Beach-rd., Mevagissey. E. and S. Dep. £2 2s.

APRIL 21.

Barnes T.C.—8 flats at Trinity Church-rd. B.E. and S. Dep. £2.

Berkhamsted U.D.C.—Construction of reinforced concrete footbridge. E. and S. Dep. £2 2s.

*Blackwell R.D.C.—24 houses off Mansfield-rd., Hillstown, Derbys. Architect and Housing Superintendent, "Dale-close," 100, Chesterfield-rd., South, Mansfield. Dep. £2 2s.

Hucknall U.D.C.—Contract No. 1: 74 houses at Ruffs Farm estate; Contract No. 2: roads, sewers, water mains and general site works. S. Dep. £2 2s.

APRIL 22.

*Leominster T.C.—16 Airey houses at Gateway-la. Walter B. Bond, F.S.I., Quantity surveyor, 3, Newhall-st., Birmingham 3. Dep. £2 2s.

Poole T.C.—50 houses at Bourne estate, Herbert-ave., Parkstone. B.E. and S. Dep. £2 2s.

APRIL 23.

Bebington T.C.—50 houses at Brackenwood. E. and S. Dep. £2 2s.

Bournemouth T.C.—Adaptation of Pelhams, Kinson, into child welfare clinic and maternity hostel. Boro' A. Dep. £2 2s.

APRIL 25.

Southend-on-Sea.—Rebuilding 7 houses at Leigh housing estate. B.E. Dep. £2.

APRIL 28.

Kingston-upon-Hull T.C.—66 flats and one shop at Porter-st.-William-st. site. City A. Dep. £1 1s., payable to City Treas.

MAY 5.

*Brentford and Chiswick T.C.—9 aged persons' dwellings and 16 houses at Church-walk, Brentford. B.E. and S. Dep. £5 5s.

Wandsworth B.C.—Rebuilding 34 houses on Furzedown estate, Streatham, S.W.16. Geo. Elkington & Son, Architects, Norfolk House, 7, Laurence Pountney Hill, London, E.C.4. Dep. £2 2s.

MAY 8.

†*West Sussex C.C.—Canteen kitchen and dining-room at Northmundham school, nr. Chichester. F. R. Steele (F.), County A., Chichester.

NO DATE.

*Castle Donington R.D.C.—22 houses and street works at Kegworth; 12 houses and street works at Breedon-on-the-Hill; 6 houses at Hemington. McCarthy, Collings & Co., Chartered Architects, 187, Forest-rd., Coalville. Dep. £2 2s.

MISCELLANEOUS

APRIL 14.

Hove T.C.—Demolition of C.D. structures. B.S. Dep. £3 3s.

APRIL 18.

Wolverhampton C.B.—Demolition and clearance of static tanks and shelters. B.E. Dep. £2 2s.

APRIL 21.

Brentford and Chiswick T.C.—Demolition of shelters. B.E. and S. Dep. £2 2s.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

APRIL 14.

Caterham and Warlingham U.D.C.—E. and S. (Materials.)

Colwyn Bay T.C.—B.S. and E. (Materials.)

APRIL 16.

Southborough U.D.C.—S. (Materials.)

APRIL 19.

Maidstone T.C.—Electrical installation in 112 houses at Shepway Farm estate. B.S.

MAY 14.

*Salford T.C.—Heating installation at Nurses' Home, Hope Hospital. City E. Dep. £5 5s.

ROADS, SEWERAGE AND WATER WORKS

APRIL 14.

Glossop T.C.—Roads and sewers at Newshaw-la., site "B." B.S.

Ongar R.D.C.—Roads and sewers at Chipping Ongar and Stondon Massey. E. and S. Dep. £2 2s.

Penrith R.D.C.—Contract No. 1: Laying and jointing of 6¼ miles of 8-in. and 6-in. bitumen-lined steel pipes. Contract No. 2: Enlargement of service reservoir. C. Dep. £2 each contract.

Prestwich T.C.—Construction of 400 lin. yds. of 9-in. foul sewer, etc., at Agecroft-rd., West. B.E. and S. Dep. £3 3s.

APRIL 15.

St. Austell U.D.C.—Roads, sewers and water mains at Poltair. E. and S. Dep. £2 2s.

APRIL 16.

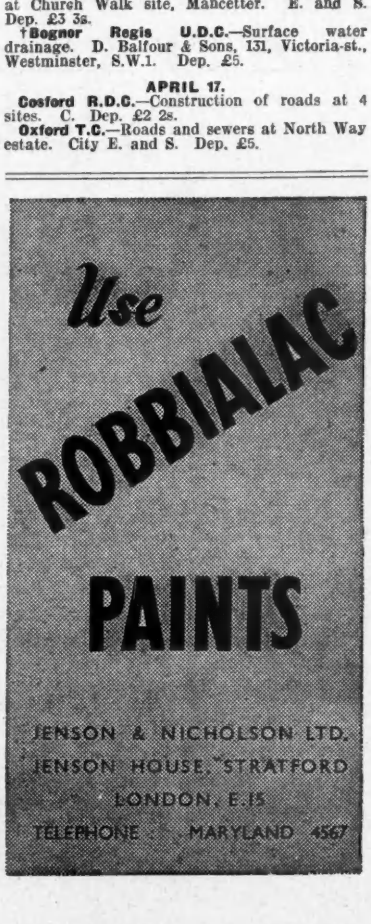
Atherstone R.D.C.—Roads and sewers, etc., at Church Walk site, Mancetter. E. and S. Dep. £3 3s.

†Bognor Regis U.D.C.—Surface water drainage. D. Balfour & Sons, 131, Victoria-st., Westminster, S.W.1. Dep. £5.

APRIL 17.

Cosford R.D.C.—Construction of roads at 4 sites. C. Dep. £2 2s.

Oxford T.C.—Roads and sewers at North Way estate. City E. and S. Dep. £5.



APRIL 18.

Wellington (Salop) R.D.C.—1,000 lin. yds. of sewers, 6 in. and 9 in. dia., with manholes, etc., at Church Aston. A. H. S. Waters, M.I.C.E., 25, Temple-row, Birmingham, 2. Dep. £3 3s.

APRIL 19.

Bishop Auckland U.D.C.—Laying of sewers at St. Helen's estate and Tindale-cres. E. and S., 50, North Bondgate. Dep. £2 2s.

Droylsden U.D.C.—Surface dressing. S.

Harpenden U.D.C.—Surface dressing. S.

APRIL 21.

Blaby R.D.C.—Roads and sewers at 4 sites. F. W. James (L.), Council Offices, Narborough, nr. Leicester. Dep. £2 2s.

APRIL 22.

†New Romney T.C.—Works of sewerage at housing site. D. Balfour & Sons, Consulting Engineers, 131, Victoria-st., Westminster, S.W.1. Dep. £3.

Wellingborough R.D.C.—Ecton water supply. Contract No. 1: Laying and jointing approx. 3,000 yds. of 3-in. and 4-in. iron water main; Contract No. 2: Supply and delivery of approx. 3,000 yds. of 3-in. and 4-in. iron water main; Contract No. 3: Erection of reinforced concrete water tower. Pick, Everard, Keay and Gimson, 6, Millstone-la., Leicester. Dep. £2 2s.

†Wycombe R.D.C.—Surface water drainage and sewage disposal works at Bourne End. D. Balfour and Sons, 131, Victoria-st., S.W.1. Dep. £5.

†Wycombe R.D.C.—Roads at Bourne End, Brocklehurst and Cooper, Crendon-st., High Wycombe. Dep. £2.

APRIL 23.

Carlisle T.C.—Formation of Northumberland-rd. City E. Dep. £2 2s.

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the advertisement pages of this and previous issues.

GENERAL BUILDING WORK

(LONDON)

City of London.—Flats.—Plans for 275 flats, costing £950,000, have been approved in principle by the Court of Common Council. Flats will be in area of Bridgewater-sq. and The Barbican.

Dalston.—Reinstatement of School.—Work is shortly to commence on the repair of war damage and additional alterations at Sigdon-rd. school. Total cost of work is estimated at £32,410.

Deptford—Flats.—Plans for the layout of four sites in connection with the second-year housing programme provide for a total expenditure of £293,000.

Highams Park.—Houses.—Messrs. Trout and Dilloway, builders, The Elms, Cannon-hill, N.14, are investigating the possibility of recommencing development of Nightingale Hall Estate by the erection of houses for sale.

Holborn.—Reconstruction of Baths.—Baths and Washhouses Committee are requesting Finance Committee to include £150,000 in the programme for 1948/49 for the reconstruction of Endell-st. baths.

Lambeth.—Crematorium.—Baths and Cemetery Committee recommend that an architect nominated by the R.I.B.A. be commissioned to prepare plans and specifications for a crematorium on a site adjoining the cemetery.

Lambeth.—Flats.—Housing Committee have approved a programme submitted by Messrs. Grey Wornum and Partners, architects, for the development of the Wyvil-rd. site. Messrs. Langdon and Every are to be appointed quantity surveyors for the scheme.

Upper Clapton.—Flats.—Hackney B.C. propose to accept a tender for £139,735 by Messrs. James Stewart & Sons (Tottenham), Ltd., 174, West Green-rd., for 90 flats on the Warwick-grove (North) site.

(PROVINCIAL)

Bakewell.—R.D.C. propose 76 houses at Baslow, Bradwell, Tideswell, Great Longstone, Winster and Beeley.

Barnard Castle.—R.D.C. approved plans for additions at penicillin factory for Glaxo Laboratories, Ltd.

Belper.—U.D.C. approved layout for 60 houses at Belper-la. Plans by A. P. Taylor.

Billingham-on-Tees.—Durham County E.C. to erect secondary school at Roseberry-rd. estate.

Blackpool.—T.C. approved factory off Collins-ave., Lansdowne, for K.W. Bodies, Ltd.

Bolton.—E.C. propose county primary school at Sharples.

Brompton and Sawdon.—North Riding E.C. propose reconstruction of school at £7,930.

Burnley.—Massey's Burnley Brewery Co., Ltd., Bridge End Brewery, propose hotel at Brun-

shaw-rd. Plans by Hitchon & Pickup (L.), 46, Manchester-rd.

Coventry.—E.C. propose school at Sadler-rd. and Halford-la., Keresley.

Darley Dale.—Derbys. E.C. propose extending school and erection of secondary modern school.

Daventry.—Grammar School. Governors propose physics laboratory and canteen.

Dewsbury.—T.C. approved: Additions at Batley Carr Mills for J. Ellis & Co., Ltd.; warehouse, Carlton-rd., for J. Horsfield & Co., Ltd.; additions at Crown Paper Mills, Savile Town, for Yorkshire Paper Stock Co., Ltd.

Ecclesfield.—West Riding E.C. propose two county primary junior and infants' schools and secondary modern school at Parson Cross estate.

Flint.—T.C. propose development of Cornist Hall site for flats.

Fulwood. — Lancs. E.C. propose county primary school.

Gateshead.—Rowell, Ltd., 143, High-st., Gateshead, seeking site at Askew-rd. area for brewery. S. Finney & Co., Ltd., Grainger-st., Newcastle-on-Tyne, to erect warehouse at Lobley Hill-rd., to plans by E. M. Betchelor, Allenheads, Hexham.

Halesowen. — Worcs. E.C. propose police houses at Carter's-la., Lapal.

Harrow.—U.D.C. approved in principle erection by A. W. Curton, Ltd., 71, Edgwarebury-rd., Edgware, of 161 permanent houses, 16 aged persons' dwellings and block of flats at Edgware golf course housing estate, Stanmore.

Hathersage.—Derbys. E.C. propose kitchen and dining-room at C. of E. schools.

Hull.—A. C. Blackmoore (L.) (Blackmore & Sykes), Ruskin-chbrs., Scale-la., is architect for cinema at Ferensway for Hull Cinemas, Ltd. Bass, Ratcliffe & Gretton, Ltd., Station-st., Burton-on-Trent, propose hotel at Gorton-rd. and Kingston-rd., Willerby.

Jarrow.—Newcastle Breweries, Ltd., Haymarket, Newcastle-on-Tyne, propose hotel at junction of Roman-rd. and Calfhouse-la.

Kenilworth.—U.D.C. to prepare plans for 110 additional houses at Bulkington housing estate.

Manchester.—T.C. approved: Dining-room and kitchen at Green Mount school, Longsight-rd., Gorton, for E.C.; alterations to office block at Princess-st., for W. J. Pegge; canteen and offices to caterers at Heald-gr., Rusholme, for Smallman's, Ltd.

Mexborough.—John Baker and Bessemer, Ltd., Kilnhurst Steel Works, propose extensions at £250,000.

Newcastle-on-Tyne.—T. Hedley and Co., St. Mary's-st., propose extensions to works.

Newcastle-on-Tyne.—Northern Coachbuilders, Ltd., to erect workshop. Plans by Hetherington & Wilson, County-chbrs., Westgate-rd., Newcastle.

Northampton.—R.C. authorities propose rebuilding Church of St. Gregory at Birchfield-rd., East.

Nuneaton.—Clarkson's (Engineers), Ltd., Millwalk, propose extensions to works at King Edward-rd.

Ormskirk. — Lancs. E.C. propose county primary school at Greetby-hill.

Otley.—U.D.C. approved: Additions at Bowling Green hotel, Bondgate, for Hammond's Bradford Brewery Co., Ltd., Fountain Brewery, Manchester-rd., Bradford; alterations at Harrison's Works, Leeds-rd., for William Eyres, Ltd.

Preston.—Preston and District Disablement Advisory Committee propose factory for disabled persons at Deepdale Mill-st.

Salford.—T.C. approved: Extensions to warehouse, West Howard-st., for F. S. Preston & Son (Earthenware), Ltd.; extensions to premises, Broad-st., Pendleton, for William Timpson, Ltd., Empiric House, Great Ducie-st., Manchester 3.

Seaham.—Factory to be established for M. Jackson & Son (Clothiers), Ltd., Newcastle-on-Tyne.

Shepshed.—Aircraft Spares and Repairs, Ltd., propose factory.

Skelmersdale.—M.O.W. propose erection of factory.

Skipton.—West Riding E.C. propose school and playing fields at Cross Hills.

Skipton.—R.D.C. approved in principle layout providing for 78 houses at Beanlands site, Glusburn.

Stafford.—Staffs. E.C. propose first instalment of Stafford county primary school at Silkmore estate at £20,300.

Stockport.—E.C. propose primary school at Grafton-st.

Stone.—Lotus, Ltd., Sandon-rd., Stafford, propose extensions to shoe factory.

Stretford.—T.C. propose development of 13-acre site at Christie-rd., for houses; M.O.W. propose office block at Warwick-rd., South.

Tipton.—T.C. approved: Additions to works at New-rd. for Babcock & Wilcox, Ltd.; Picture House (Princes End), Ltd., propose cinema at Newhall-st.

Warrington.—B. Laporte, Ltd., chemical manufacturers, Luton, Beds,, propose development of site at Lower Walton between Chester-rd. and Acton Grange for factory.

Warwick. — Warwickshire E.C. propose secondary modern school at south side.

TENDERS

* **Denotes *accepted*.**
† **Denotes *provisionally accepted*.**
‡ **Denotes *recommended for acceptance*.**
§ **Denotes *accepted subject to modification*.**
¶ **Denotes *accepted by H.M. Government departments*.**

Bakewell.—4 houses at Beeley and 2 pairs at Bradwell for R.D.C.: *W. A. Sheldon, Baslow, £4,900, and *Furniss and Hassall, Longstone, £5,041 (subject to M. of H. approval).

Birmingham.—Farmhouse and improvements to existing farm buildings at Makiel Hall Farm, Wythall, for City Council: *H. H. Matthews, Birmingham-rd., Alvechurch, £3,318.

Brighton.—58 Trusteel houses at Hollingbury: *Gorham (Contractors), Ltd., 4, The Crescent, Goring-rd., Goring-by-Sea, Worthing, £79,309. (Amended paragraph.)

Chesterfield.—Provision of lavatory block and alterations to existing premises at Violet Markham school, for Derbyshire E.C.: *Frank Robinson, Ltd., £2,179.

Glasgow.—Erection of 200 2-storey Weir Quality steel houses on various sites for the City Council: G. & J. Weir, Ltd., £245,000. Site works—direct labour (recommended).

Hackney.—Erection of 2 houses and 4 flats (by the Chase Unit Construction method) on the Elderfield-rd. site, for the B.C.: Davis Estates Co., 314, High-rd., Tottenham, N.15. Est. cost, £7,900.

Hartley Wintney.—7 houses at Phœnix Green, for R.D.C.: *O'Hara & Elkins, £8,775 (subject to M.H. approval).

Kingston-upon-Thames.—Works for B.C.. 9 flats at Surbiton-rd: *Thorogood & Sons, Surbiton, £11,030; 14 flats at Balmoral-rd.: *Thorogood & Sons, £10,842; 12 houses at Woodside-close: *Matthes, Ltd., 1-2, Poultry, London, E.C.2, £14,134 (all subject to M.H. approval).

Liverpool.—Works off Long-la. for Ch. Gouldrei Fouchard & Co., Ltd., W. T. Gunson & Son (F.), 10, Marsden-st., Brown-st., Manchester 2: *William Moss & Son, Ltd., Roscoe-st., Liverpool 1.

Liverpool.—Works for T.C. Alterations and extensions to factory, No. 3, Edwards-la., Speke: *James Tomkinson & Co., Ltd., 22, Roscommon-st., Liverpool 5, £12,166; 150 flats at Brook House estate: ‡Unit Construction Co., Ltd., 9, Bentham-dr., Liverpool, £128,668 (subject to M.H. approval); alterations at administrative block "K," Belmont-rd. hospital: ‡W. Lothian, Liverpool, £5,198; erection of lavatory accommodation at Walton Hospital: ‡J. & E. Aspinall, Liverpool, £1,361.

Loddon.—4 pairs of Airey houses at Toft Monks, for R.D.C. Tayler & Green, of 10, North-parade, Lowestoft: *Moore (Builders), Ltd., Oak-st., Norwich, £11,041.

¶London (Admiralty).—*Yeovilton*, R.N. Air Station: Painting and decorating: Stansell & Son (Taunton), Ltd., Billet-st., Taunton, Somerset..

¶London (Air Ministry).—Contracts to value of £500 or over for week ended March 29:—*Redecorations:* Alfred Bagnall & Sons, Ltd., London, W.12. *Painting work:* Haymills (Contractors), Ltd., London, W.5.

¶London (M.O.W.).—Contracts placed by M.O.W. for week ended March 27:—*London:* Wandsworth, B.C.2F., additional sites for Seco and Tarran houses, Kirk & Kirk, Ltd., Atlas Works, Putney, S.W.15. *Beds:* Silsoe, Wrest Park, erection of structural steelwork at N.I.A.E. College, Boulton & Paul, Ltd., Norwich. Norfolk. *Caernarvon:* Modern Secondary school, temporary buildings, G. & T. P. Gregory, 24, High-st., Caernarvon. *Durham:* Washington U.D.C.2, sites for temporary houses, Geo. McCall, Ltd., Kirkside, New Herrington, Philadelphia, Durham. *Essex:* West Ham, Cave-rd. school, kitchen and dining-room, H. C. Horswill, Ltd., 182, Green-st., Forest Gate, E.7. Chipping Ongar school, additional classrooms, A. E. Symes, Ltd., 5, Coleman-st., E.C.2. Brentwood secondary school, additional classrooms, S. Cronin & Sons, Ltd., Britannia-rd., Warley, Brentwood. *Hampshire:* Southampton, C.B.19, site works and Arcon houses, W. T. Nicholls (Southern), Ltd., Tennyson-rd., Southampton. *Kent:* Orpington Post Office and Sorting Office, extension of garage and workshop, Halse & Sons, Ltd., 5, Chapel-hill, Woolwich, S.E.18. *Lanarkshire:* Cambuslang and Eddlewood, site works and Tarran houses, F. J. C. Lilley, 57/61, Meiklewood-rd., Glasgow, S.W.1. *Lancs:* Wigan, St. Mary's R.C. school, hutted accommodation, D. A. Ableti & Son (1938), Ltd., Sovereign-rd. Saw Mills, Wigan. Newton-le-Willows Grammar-school, kitchen and dining-rooms, J. Yearsley & Sons, Ltd., Fenton-st., St. Helens. *Norfolk:* Norwich, Avenue-rd. school, dining-room and scullery, R. G. Carter, Ltd., Drayton, Norwich. Blofield & Flegg, R.D.C.1, foundation and site works, Aluminium houses, W. Ames, Ltd., Dene Side, Gt. Yarmouth. *Staffs:* Smethwick, Devonshire-rd. school, kitchen and dining-room, W. B. & F. J. Archer, Holyhead Works, Rookery-rd., Handsworth, Birmingham. *Surrey:* Richmond, B.C.3, additional sites for temporary houses, Lavender McMillan, Ltd., 54, Cheam Common-rd., Worcester Park. Kingston, B.C.2, additional sites for temporary houses, C. K. Davis, Ltd., Estate Office, Orchard Estate, Sheppperton-on-Thames, Mddx. Sutton, Grove-rd., temporary sorting office and garage, H. H. & F. Roll, Ltd., 7, Ashley-rd., Epsom. Chobham, Vicarage-rd., infants' school, temporary school buildings, Smith Bros. (Builders), Ltd., Claremont Works, West Byfleet, Surrey. *Sussex:* Brighton, Whitehawk senior school, temporary buildings, McKellar & Waterman, Ltd., 143, Church-rd., Hove. Midhurst, King Edward VII Sanatorium, new wing, Crosby & Co., Ltd., Lion Works, Farnham. Newick, Adlington-rd., Church school, temporary building, Norman & Burt, 255, London-rd., Burgess Hill, Sussex. *Worcs:* Dudley, St. Joseph's-rd. school, temporary building, A. J. Crump & Sons, Ltd., Aston-rd., Dudley. Jakeman & Round, Hellier-st., Dudley. Dudley, Wrens Nest school, kitchen and dining-room, Dudley, Priory school, scullery and dining-room, Jack Wistance, Ltd., Leicester-bldgs., Bridge-st., Walsall. *Yorks:* Sheffield, Meynell-rd. junior and secondary school, dining-room and scullery, D O'Neill & Son, Ltd., Solly-st., Sheffield, 1. Bentley, Toll Bar School, kitchen and dining-room, J. H. Gilbert, Ltd., 15, Cemetery-rd., Doncaster. Barnoldswick, telephone exchange, Blakeley & Son, Ashdene, Greenberfield-ln., Barnoldswick. Normanton modern senior school, kitchen and dining-room, J. H. Thorpe & Son, Ltd., Grove House, Church-ln., Normanton.

Mansfield.—46 houses with reinforced concrete raft foundations at Bancroft-la. estate, for Housing Committee: *C. H. Hill & Sons, Ltd., Mansfield, £55,569.

Newcastle-on-Tyne.—Further houses for City Council. R. G. Roberts, City A. 12 at Blakelaw estate: *J. W. White (Shopfitters), Ltd., Team Valley, Gateshead; 6 bungalows at Lanercost-dr.: *Rochester & Kirk, Lanercost-dr., Newcastle-on-Tyne.

North Witchford.—4 houses at Wimblington, for R.D.C.: *Cox & Sons, March, £5,082.

Oswestry.—Conversion of Glentworth, Morda-rd., into nurses' home for Oswestry Guardians' Committee: *J. Watkins, Bear-yard, Oswestry.

Rochester.—24 houses facing St. Williams-way, for T.C.: *Direct labour, £26,893.

St. Marylebone.—Demolition of trench shelters, for B.C.: ‡G. Wimpey & Co., Ltd., £3,568 (subject to H.O. approval).

Skipton.—12 houses at Collinge-rd., Cowling, for R.D.C.: *Sam Gott, Cowling.

Stanley.—42 houses, for U.D.C.: *D. F. Mann & Sons, 10 at Lime Pit-la. estate, £9,810; *H. Smith & Sons, 32, £31,824.

Staythorpe, nr. Newark.—Power station, for Derbyshire and Nottinghamshire Electric Power Co. Architect, T. Cecil Howitt (F.), St. Andrew's House, Mansfield-rd., Nottingham: *Balfour, Beatty & Co., Ltd., 66, Queen-st., E.C.4.

Stockport.—Extensions for practical room at Fylde Lodge High School for Girls, Mauldeth-rd., Heaton Mersey, for E.C. L. Yates (L.), Boro' Education Architect, Town Hall: *J. C. Ellison, Ltd., Woodford Green, £3,390.

Sunderland.—Primary infants' school and kitchen dining-room at Hendon, for E.C.: ‡Direct labour, £39,877 ad £6,214 respectively.

Swanscombe.—62 "Easiform" houses, for

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U.D.C.: *Gough, Cooper & Co., Ltd., 19-21, Collingham-gdns., S.W.5, £79,251.

Tynemouth.—100 houses at West Chirton "B" site, for T.C. D. M. O'herlihy. *J. White (Shopfitters), Ltd., Team Valley, Gateshead (50); *J. H. Rogers, Regent-terr., North Shields (50).

Ystradgynlais.—90 houses with road and sewers, etc., at Yniswen site, Penycae, for R.D.C. W. Edgar Evans, F.S.I., E. and S., Council Offices: *Dd. Davies & Son, Alltine, Pontardawe, Swansea, £138,000.

Wakefield.—Factory for M.O.W.: *W. Barber, 52, Northgate, Pontefract.

CHEMICALS FROM PETROLEUM

USES IN BUILDING INDUSTRY

EXTENSIVE plans for the manufacture of chemicals from petroleum are announced by the Shell Petroleum Company, Ltd.

These plans include the building of new plant at Thornton-le-Moors, Cheshire; the extension of an existing plant at Shell's specialised refinery at Stanlow, on the Manchester Ship Canal; the enlargement of an existing plant at Shell Haven, Essex.

Petroleum, a mixture of hydrocarbons, and imported from sterling sources, will be used both as a raw material and as fuel for operating the plant and the chemical products will be used for a variety of purposes in agriculture, engineering, building, shipping, etc.

Indirectly, the building industry absorbs a considerable amount of the output of petroleum chemicals in the form of paints and lacquers for protective and decorative purposes, but of direct interest to the building industry is the protective action of the metallic naphthenates on timber. The copper and zinc salts of naphthenic acid are efficacious in preserving new timber against the spores of dry rot and are used with success in preventing recurrence of rot after renewing affected floors. The petroleum chemical industry also produces materials for the paint and allied industries.

Modified P.A.Y.E. Scheme for Small Employer.

Following the adoption by the Inland Revenue of Mr. J. Clayton's modified P.A.Y.E. scheme as a permissible alternative to their own, Mr. Clayton, of Carlton House, Lower Regent-street, S.W.1, informs us that he has now devised a further modification having regard particularly to the small employer, who has no expert staff to assist him, and designed primarily to show a fixed weekly deduction in the case of a fixed weekly wage. This modification has been submitted to the Inland Revenue, who have informed the author that the revised method may be used, subject to the same conditions as those applied to the modified scheme.

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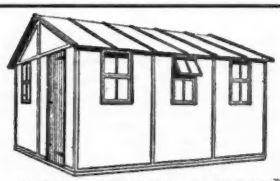

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